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ABSTRACT

A competency-based instructional guide for grades 7-14, this volume is one of three parts, each of which focuses on a different instructional environment (psychomotor, cognitive, or affective) for clothing or fashion instruction, and each of which includes competencies and corresponding learning activities for each of three instructional levels. The topic for this volume (Environment I--psychomotor) is fashion selection and construction, with emphasis placed on individualized instruction. (The Environment II volume [CE 015 956] on clothing communication and the clothing consumer in the marketplace emphasizes group processes while Environment III [CE 015 957] on exploring fashion careers emphasizes interdisciplinary instruction.) Besides the six chapters that constitute Environment I, this volume includes the introductory sections to the entire set, outlining the methodology used to develop the course, its structure, possibilities for application, and scope, and listing companies offering materials to home economic teachers. Constructed so that the student may proceed at his own pace, the six topics of this volume are crafts; selection of clothing, patterns, and fabrics; fiber and fabrics; sewing equipment; construction competencies; and care of clothing. Each chapter consists of the following parts: a topical outline, a bibliography, the competencies and corresponding activities for each instructional level, and validated challenge tests. (ELG)

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ED154195

"FIBER, FABRIC, AND FASHION"

Clothing and Textiles

Curriculum

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OE 015 955

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Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Therefore, this guide was developed in compliance with this law.

The curriculum materials developed in this project have been edited to delete any sex discrimination in the competencies, learning activities and appendices. A definite effort was made to incorporate learning activities suitable for both males and females and to develop accompanying materials appropriate for both sexes.

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FOREWORD

Individualized instruction, challenge tests, mini-units, semester courses in non-skill related areas, and interdisciplinary exploration of careers--all are a part of the Clothing and Textiles Curriculum, "Fiber, Fabric, and Fashion." This competency-based instructional guide has been developed with an array of teaching-learning alternatives. The individualized instruction materials coupled with the validated challenge tests provide an opportunity for students from seventh through fourteenth grade levels to progress at their own rate. Mini-units provide for students, young and old, to learn a leisure time skill or a fast method of construction. Semester courses acquaint advanced students, young men and young women, with the marketplace and the purchasing of clothing. Yet another section addresses exploration of fashion careers as an interdisciplinary program for younger students in distributive and home economics areas.

The curriculum has been established in three environments--the first primarily having to do with the psychomotor domain of learning, the second delving into the cognitive or the knowledge domain, and the third into the affective or attitudinal phase. Skills, knowledge, and attitudes are all necessary for development of an individual to his fullest potential, regardless of the area.

This publication will provide only a beginning. Teachers themselves will need to be the catalyst for implementation of these ideas and techniques. They can bring these changes and alternatives to their classrooms through individual study of the guide, through participation in inservice workshops, and through trying out new program alternatives.

The teachers, teacher educators, subject matter specialists, state staff, and advisory committee members who worked with the guide, the challenge exams, and the validation are commended for their contributions to this publication.

William J. Anderson

WILLIAM J. ANDERSON
Associate Superintendent for
Career and Vocational Education

INTRODUCTION

"When will the curriculum materials for Textiles and Clothing be available?" has been one of the most often repeated questions we have had. We have wondered too, because you would not believe the things which have delayed the publication, Fiber, Fabric and Fashion.

We are extremely happy to be able to share with the Arizona teachers this comprehensive and diverse publication, which will be in three parts rather than just one. You will find each is organized around a different "Environment." These are:

Environment I - Fashion Selection and Construction

Environment II - Clothing Communication and the Clothing Consumer in the Marketplace.

Environment III - Exploring Fashion Careers

The debt is great which we have to the teachers, teacher educators, supervisors, and advisory board members who have given so much to create a different approach to the home economics content area of Clothing and Textiles in a rapidly-changing modern world of living. This means educational materials and processes must be adapted. Many surprises await you as you learn to use these curriculum materials.

Fiber, Fabric and Fashion curriculum materials will be distributed only through instructional workshops and sessions. It will be introduced at the annual teachers conference in Flagstaff in early August with a series of meetings to be scheduled throughout the State.

We can only thank those who have been instrumental in bringing these instructional materials into being. A special word of thanks and commendation go to Dr. Margaret Barkley, Arizona State University, and to Mrs. Barbara Border, a member of my staff, for their perseverance and determination to produce a product which will move the Textiles and Clothing content out of the "stitching" era.

Clio S. Reinwald

CLIO S. REINWALD
Director, Home Economics Education

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Processes Used in Producing This Guide

1. Development of the outline with an integration of the elements from the Arizona Career Education Matrix.

2. Validation of the outline by members of the advisory committee.

3. Refinement and validation of the outline in three curriculum workshops held at:
   - Arizona State University - Northern Arizona University - University of Arizona

4. Workshops held at Arizona State University with emphasis on defining the conceptual structure and competencies and planning activities in the following areas:
   - interdisciplinary approach to exploration of fashion careers
   - clothing communication
   - the consumer in the marketplace
   - clothing selection and construction processes with attention given to individualized instruction

   In these workshops the curriculum developers included:
   - junior high teachers
   - secondary high teachers
   - postsecondary or community college teachers
   - state staff
   - content specialists at the universities
   - teacher educators from the universities

5. Validation of the competencies by inservice teachers of clothing and textiles.

6. Development of items for the challenge test for Level I and Level II.

7. Field-testing of the challenge tests for Level I and Level II in junior high, senior high, community college and university class situations.

8. Revision of the challenge tests and final instruments completed.

9. Editing of the guide completed.

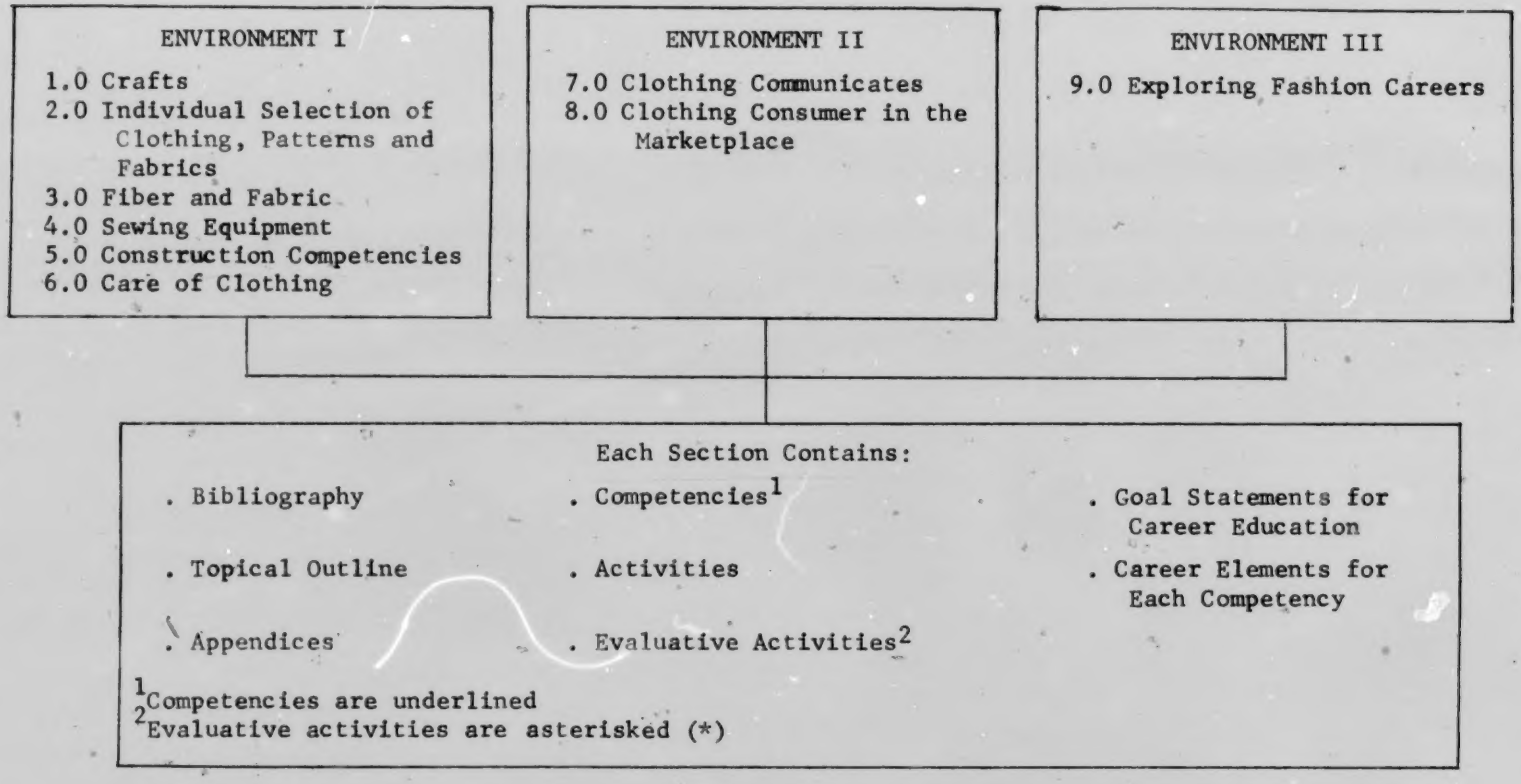
10. Distribution of the first guides at the Home Economics Education Conference on August 12, 1976.

Structural Framework of This Guide

- ENVIRONMENT I - Fashion Selection and Construction. Emphasis is placed upon competencies and individualized instruction to assist students in progressing from competency to competency at their own pace.

- ENVIRONMENT II - Clothing Communication and Clothing Consumer in the Marketplace. Group processes are encouraged in communication about clothing and consumer issues.

- ENVIRONMENT III - Exploring Fashion Careers. An interdisciplinary development with home economics and distributive education provides a means of exploring fashion careers.

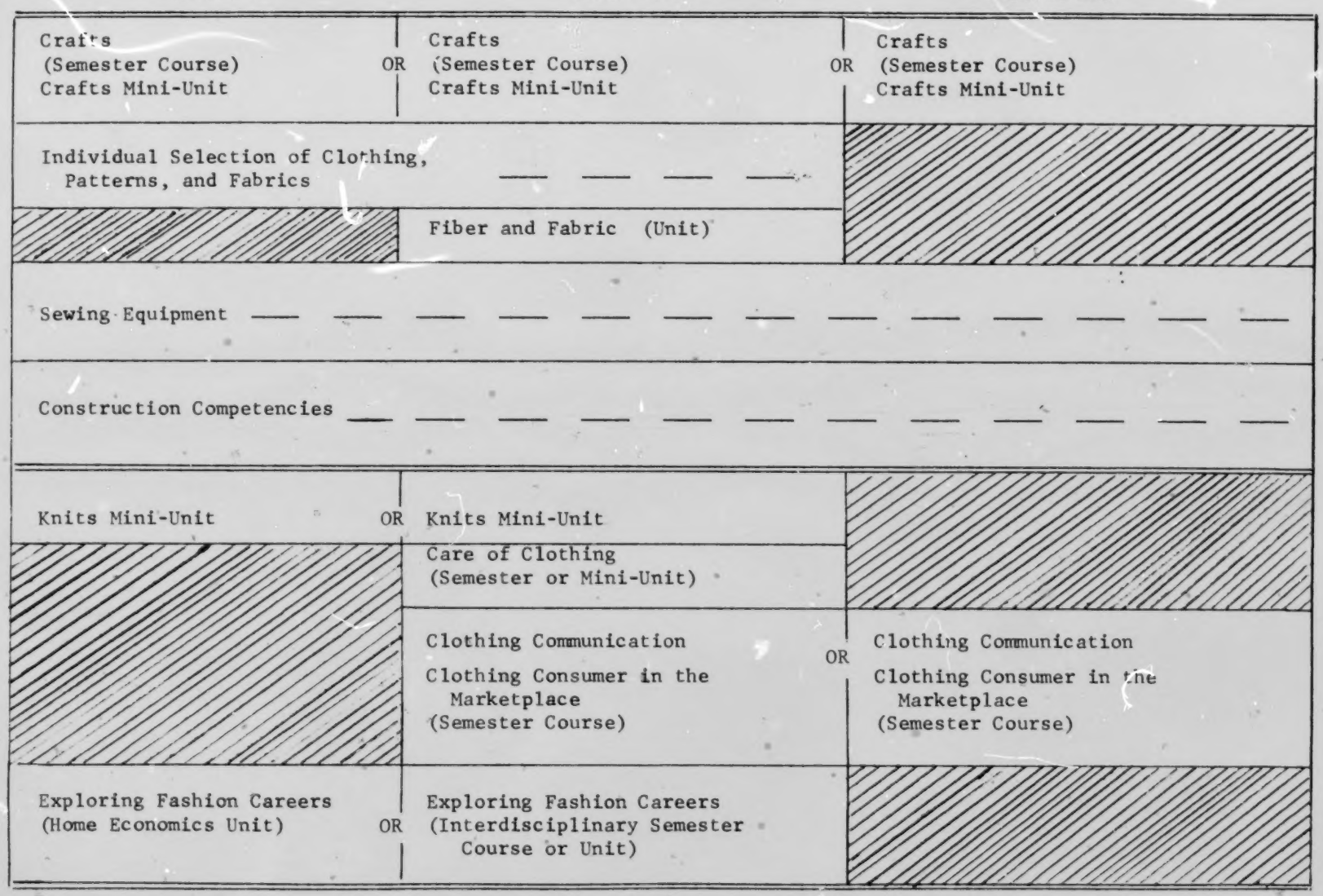


How to Use the Materials in This Guide

Each environment or portions of the environments in this guide can be used independently in a variety of ways, taking into account the previous experiences of students, time allocation possible, number of students in the classes and teaching facilities. Some possibilities for using are:

- Development of new and unusual semester courses offered to senior high students.
- Combination of selected areas into an in-depth comprehensive year course in textiles and clothing.
- An interdisciplinary course in exploring fashion careers with distributive education.
- Integration of ENVIRONMENT II, Exploring Fashion Careers, into an offering emphasizing career exploration.
- Integration of selected areas into a semester or year's course in home economics offered to beginning students.
- Development of special interest mini-courses of several weeks in length.
- Resource materials for students in HERO exploratory and cooperative education programs.

SCOPE OF "FIBER, FABRIC AND FASHION" CURRICULUM
Sequence to be selected according to local program needs



Evaluation of a Textiles and Clothing Program Through Use of These Materials

Whatever process is used in presenting materials from the guide, the program in textiles and clothing can be evaluated by asking the following questions:

(Check "X" in the appropriate column)	Yes	Partially	No
1. Are materials used with both sexes as planned by the developers?			
2. Is there a conscious effort to individualize the instruction of textiles and clothing so that content is not repeated year after year?			
3. Is there active involvement of students in real and relevant activities?			
4. Are community resources used extensively so students can learn what the real world is like?			
5. Is there emphasis on "the discovery process" rather than a "telling process" (e.g., experiments, students surveying and interviewing, and actual observations rather than lectures).			
6. Are activities used which encourage creativity on the part of students?			
7. Are students encouraged to "test out" of areas when they can demonstrate expected competencies?			
8. Are experienced students used in teaching other students when individualized instruction is possible?			
9. Are there adequate resources available in the department or library for students to use? (Resources are especially needed for students in ENVIRONMENT II and ENVIRONMENT III.			
10. Are culminating or evaluative experiences used which are varied so that not only objective or essay tests are given?			

COMPANIES OFFERING MATERIALS TO THE HOME ECONOMICS TEACHER

CLOTHING AND TEXTILES

A. C. Weber & Co., Inc.
National Pfaff Distributors
216 N. Canal Street
Chicago, IL 60606

American Home Laundry
Manufacturers Association
20 North Wacker Drive
Chicago, IL 60606

American Institute of Men's
and Boy's Wear
1290 Avenue of the Americas
New York, NY 10019

American Textiles Manufacturers
Institute
1501 Johnston Building
Charlotte, NC 28202

American Thread
P. O. Box 3326
Stanford, CT 06905

American Viscose Corporation
1617 Pennsylvania Boulevard
Philadelphia, PA 19103

The Armo Co., Education Dept.
206 W. 40th Street
New York, NY 10018

Boye Needle Company
Educational Projects Division
4343 N. Ravenswood Avenue
Chicago, IL 60613

B. Blumenthal & Co., Inc.
1372 Broadway
New York, NY 10018

Burlington House
345 Avenue of the Americas
New York, NY 10019

Celanese Fibers Marketing Co.
1211 Avenue of the Americas
New York, NY 10019

Chemstrand
350 Fifth Avenue
New York, NY 10001

Coats and Clark, Inc.
430 Park Avenue
New York, NY 10022

Conmar-American, Inc.
260 West Broadway
New York, NY 10013

Continental Felt Co., Inc.
22-26 West 15th Street
New York, NY 10011

Dan River Mills, Inc.
Danville, VA 24541

Dritz Sewing Aids
John Dritz and Sons
Empire State Building, Dept. EC
New York, NY 10001

Dupont de Nemours and Co., Inc.
Textiles Fibers Department
Wilmington, DE 19898

Eastman Chemical Products, Inc.
260 Madison Avenue
New York, NY 10016

Everglaze Marketing Division
P. O. Box 189
Wilmington, DE 19898

Fairgate
Rule Co., Inc.
Cold Spring, NY 10516

Fashionetics, Inc.
P. O. Box 146
Armonk, NY 10504

FMC Corporation
American Viscose Division
1617 John F. Kennedy Boulevard
Philadelphia, PA 19103

COMPANIES OFFERING MATERIALS TO THE HOME ECONOMICS TEACHER

CLOTHING AND TEXTILES

(Continued)

Forstman Woolen Company
Passaic, NJ 10075

General Electric Company
Housewares Division - Home Economics
Bridgeport, CT 06602

The Hirol Company
1170 W. McNab Road
Fort Lauderdale, FL 33309

International Silk Assoc.
489 Fifth Avenue
New York, NY 10017

Irish Linen Guild
1270 Avenue of the Americas
New York, NY 10020

Japan Silk Association, Inc.
385 Fifth Avenue
New York, NY 10016

J. Wiss & Sons, Co.
Education Department
400 West Market Street
Newark, NJ 07107

LaMode
c/o Reuben H. Donnelley Corp.
P. O. Box 1383
Elm City, NC 27822

Lily Mills Company
Shelby, NC 28150

Man-Made Fibers Association, Inc.
350 Fifth Avenue
New York, NY 10001

Maytag Company
Home Service Department
Newton, IA 50208

McCall's Pattern Company
Education Department
230 Park Avenue
New York, NY 10017

Michie Textiles, Inc.
1835 North Howard Street
Philadelphia, PA 19122

Milliken Woolens
Division of Derring Milliken, Inc.
1045 Sixth Avenue
New York, NY 10018

3-M Minnesota Mining & Manu.
3-M Center
St. Paul, MN 55101

M & T Chemical, Inc.
100 Park Avenue
New York, NY 10017

Necchi Information Center
551 Fifth Avenue
New York, NY 10017

N. Erlanger
Blumgart E. Co., Inc.
119 West 40th Street
New York, NY 10018

Pellon Corporation
1120 Avenue of the Americas
New York, NY 10036

Pendleton Woolen Mills
Home Economics Dept.
218 W. Jefferson St.
Portland, OR 97201

Penn Products Company
Educational Director
963 Newark Avenue
Elizabeth, NJ 07207

Risdon Manufacturing Company
Naugatuck, CT 06770

Scovill
Oakville Division
350 Fifth Avenue
New York, NY 10001

CLOTHING AND TEXTILES

(Continued)

Sears Roebuck and Company
Consumer Education Division
Chicago, IL 60607

Simplicity Pattern Co., Inc.
Educational Division
200 Madison Avenue
New York, NY 10016

Singer Sewing Machine Company
Educational Dept.
30 Rockefeller Plaza
New York, NY 10020

Spring Mills, Inc.
1430 Broadway
New York, NY 10018

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

SUPima Association of America
350 Fifth Avenue
New York, NY 10001

Talon Consumer Education
41 East 51st Street
New York, NY 10022

Textile Book Service
1447 E. Second St.
P. O. Box 907
Plainfield, NJ 07060

United States Department of Agriculture
Washington, DC 20250

Union Special Corp.
400 North Franklin St.
Chicago, IL 60610

Unique Zipper Distributing Service
161 Sixth Avenue
New York, NY 10013

White/Elna
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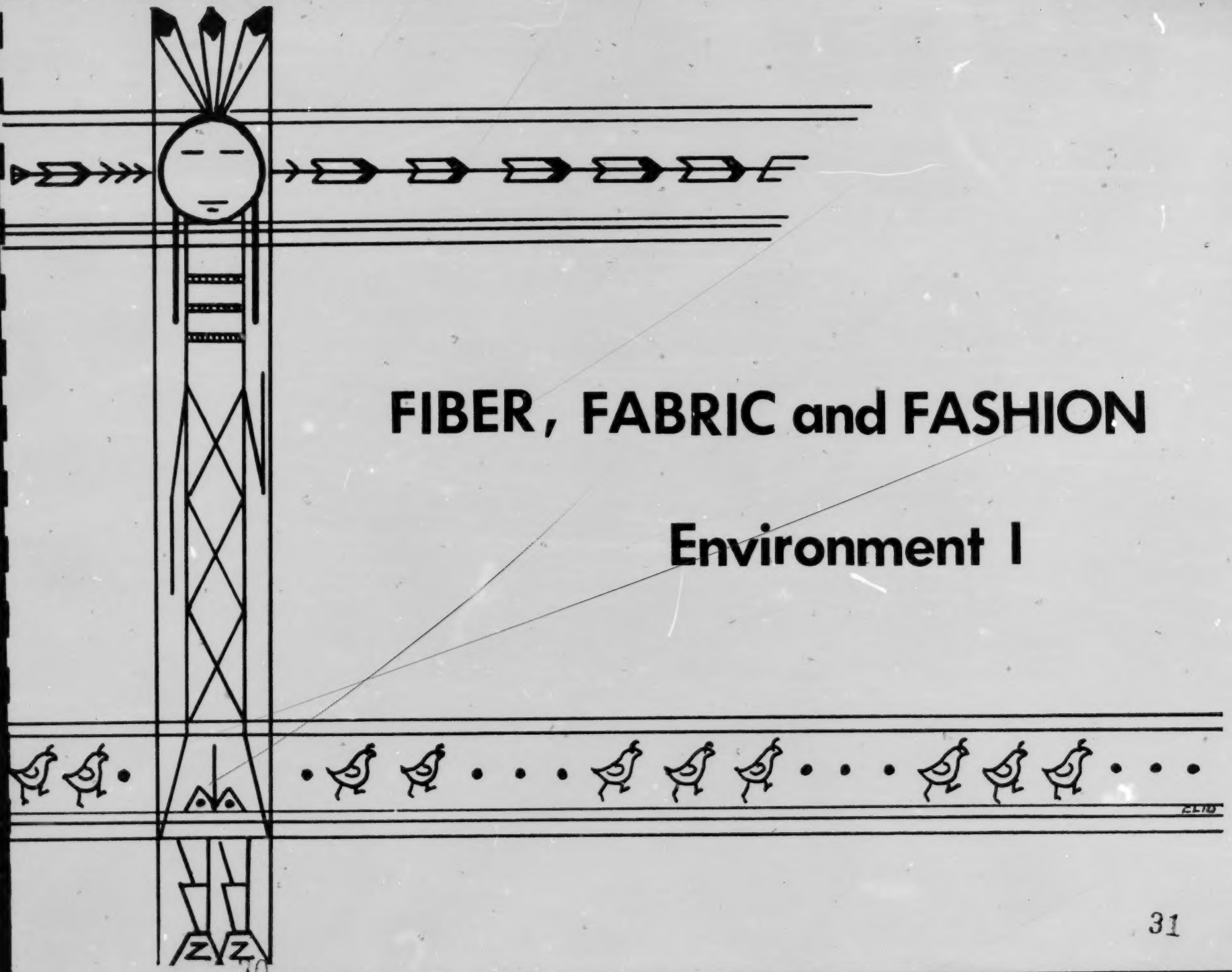
11750 Serea Road
Cleveland, OH 44111

Wm. E. Wright Co.
West Warren, MA 01092



FIBER, FABRIC and FASHION

Environment I

INTRODUCTION TO ENVIRONMENT I

Environment I is concerned with fashion selection and construction because man differs from all other creatures which inhabit the earth by creating and wearing clothes. Clothing is one of the primary needs of man. For thousands of years the human species has invested a great deal of time, thought and energy in dressing and adorning the body. Clothing not only fulfills the physical needs but social and psychological needs as well. Also clothing provides opportunities for the individual to express himself. In every age of history, clothing has expressed the values, attitudes and mores of groups found in that society.

The contemporary person had learned to appreciate more than the visual impression of fashion by turning attention toward the technical aspect--apparel construction. Whether motivated by economy or the desire to be creative and/or original, the added dimension of sewing makes fashion not only an aesthetic pleasure but a fullfilling experience to be used over and over again.

Apparel sewing is being looked upon in industry as a <u>movement</u> not a fad. The basic need for fashion sewing will remain. No matter what the economic cycle may be apparel sewing will continue to be important. Even now more than $3 billion annually is spent on sewing supplies and equipment. Six out of seven teen-age girls now sew with reasonable proficiency. Twentieth Century fashion styles have cleared the way for simple, fashionable patterns and advanced technology in the making of fabrics with special construction and finishing processes have simplified sewing processes thus creating more interest in apparel construction.

Making clothes can be a bond for knitting family ties closer together. Social values are expressed in sewing. Sewing for family members, friends, civic groups, and/or for income has been shown to have merit.

Topical Outline

1.0 Crafts

- 1.1 Craft Awareness
- 1.2 Embroidery/Crewel and Needlepoint
- 1.3 Applique and Quilting
- 1.4 Macrame
- 1.5 Recycled Crafts
- 1.6 Knitting and Crocheting
- 1.7 Additional Creative Crafts
- 1.8 Craft Cost Comparison

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1.0 CRAFTS

1.1 Craft Awareness

GOAL STATEMENT: The student will explore leisure time craft experiences through identification, selection and use of supplies, tools and equipment for creative projects.

NOTE TO TEACHER: The area of crafts will be somewhat different in format than the remainder of this guide in that all levels can explore creative activities. The teacher may elect to teach crafts as a semester course, in conjunction with other parts of this curriculum, as teacher-directed mini-units or as individualized instruction mini-units. (See Appendix A 1-30)

A sampling of various types of crafts are included in this unit. Interest in particular crafts change frequently; therefore, activities and instructions included in this unit are for crafts currently popular. Individual teachers can add and delete projects based on current trends, student needs, and teacher experiences. Students with additional skills can also add to your resources. A teacher's willingness to try new ideas and keep informed of new resources, as well as to allow students the freedom of selection, will aid in making this unit successful.

COMPETENCIES - ALL LEVELS	ACTIVITIES - ALL LEVELS
ALL LEVELS 1.1 Identifies possibilities for various kinds of hand constructed crafts which can be made for wearing apparel or decorative items for the home. (APPRECIATION AND ATTITUDES)	1.1 Students hear explanation and see demonstrations of a variety of crafts exhibited by the teacher or a resource person. Teacher leads brainstorming session on crafts and materials that can be made for apparel or home decorating. Students bring handmade crafts and explain materials needed and construction processes used. Students go on a "Library Treasure Hunt." Using resources in the school library, students find as many craft resources as they can in thirty minutes and list the crafts that can be made. Students research a craft in which they are interested and write a news story about it. Origin, how it developed, and use today are illustrated.

COMPETENCIES - ALL LEVELS	ACTIVITIES - ALL LEVELS
	1.1 (continued) NOTE TO TEACHER: See Appendix 1.0, A-5, for a Craft Activity Planning Sheet and Appendix 1.0, A-6 for Goals for the Week. These can be used to help students in planning each project they create in this unit.
1.2 Demonstrates ability to apply embroidery/crewel and/or needlepoint stitches to a selected project according to interest and ability. (BEGINNING COMPETENCY)	1.2 Student uses a piece of burlap to practice embroidery/crewel stitches or a piece of canvas to practice needlepoint stitches after observing a demonstration or using a handout with appropriate stitches. (Appendix 1.0, 8-10) NOTE TO TEACHER: Show illustrations of commercial kits and completed projects. Have embroidery/crewel and needlepoint samples which can be used to inspire students. Students select projects from the following: 1. Commercial kits (all supplies included) such as picture, pillow, towels, etc. 2. Transfer method - design is transferred onto fabric. See Appendix 1.2A for methods and procedures. NOTE TO TEACHER: Conduct a "Decorate Your Clothing Contest" for students in your school. Get prizes from local businesses (Appendix 1.2B)

1.3 Applique and Quilting
1.4 Macrame

COMPETENCIES - ALL LEVELS	ACTIVITIES - ALL LEVELS
1.3 Demonstrates ability to apply applique and/or quilting techniques to a selected project according to interest and ability. (BEGINNING COMPETENCY)	1.3 Students practice applique techniques on scraps of fabric and make applique sampler (Appendix 1.0, A-12, 13). Individual students or class selects project(s). If entire class elects to construct project (e.g., quilt), raffle tickets may be sold for a money making project. Projects might include: Applique: Pillow Picture Crib Quilt Wearing Apparel for Self or Children Quilting: Crib Quilt Purse Hat Skirts
1.4 Demonstrates ability to tie macrame knots for a selected project according to interest and ability. (BEGINNING COMPETENCY)	1.4 Students practice tying knots using rug yarn, jute or heavy cord. A sampler can be made with teacher's instruction. (Appendix 1.0, A-17) The following are projects which could be selected by students and are in order of difficulty: a. Key chains (Appendix 1.0, A-18 and 1.4) b. Owl (Appendix 1.0, A-17, 20) c. Pot sling (Appendix 1.0, A-21) d. Others - several books are available with various ideas.

1.5 Recycled Crafts
1.6 Knitting and Crocheting
1.7 Additional Creative Crafts

COMPETENCIES - ALL LEVELS	ACTIVITIES - ALL LEVELS
1.5 Demonstrates ability to recycle old materials into usable accessories according to interest and ability. (BEGINNING COMPETENCY)	1.5 Students find old materials at home, at school, or in second-hand stores and recycle them into usable accessories. Some suggestions are: a. Make blue jean purse and skirt b. Embroider old pieces of clothing c. Mend or patch a piece of clothing creatively [Appliques make good patches (Appendix 1.5, A-1)] d. Make fabric scraps into patchwork projects, such as pillows, skirts, etc. e. Make planters or containers from small objects out of tin cans, cartons, jars, boxes, etc. f. Make decorative accessories out of paper plates, magazines, bottles, etc. (Appendix 1.5, A-2, 3)
1.6 Demonstrates ability to knit and/or crochet a selected project based on interest and ability. (BEGINNING COMPETENCY)	1.6 Students make samples of knitting and crocheting after observing teacher or guest demonstrator, viewing filmstrips or films, and using available handouts.
1.7 Demonstrates skills necessary for the completion of a creative craft project. (BEGINNING COMPETENCY)	1.7 Students select creative projects according to interests and experiences, time and materials available. Following are examples of projects which can be made: a. Ojo de Dios (Appendix 1.0, A-23) b. Weaving c. Beading d. Rugs e. Textile decorating (tie-dyeing, batiking and liquid embroidery)

COMPETENCIES - ALL LEVELS	ACTIVITIES - ALL LEVELS
	1.7 (continued) f. Stuffed animals g. Decoupage h. Jewelry [safety pin necklace (Appendix 1.7)] i. Dough art (Appendix 1.5, A-2) j. Plaster domes (Appendix 1.5, A-3) k. Knit hats (Appendix 1.5, A-2) l. Other (Appendix 1.5, A-2, 3)
1.8 Compares cost and quality of handmade and commercially made craft articles. (ECONOMIC AWARENESS)	1.8 Students compare the cost and quality of three similar craft projects from a novelty shop, discount store and handmade item by an individual. Each student writes a summary of the findings including cost, quality of each, and his/her choice to purchase. Students can share findings with other class members.

APPENDIX 1.0 - A-1

"CREATE AND MAKE IT"

Individualized Teaching Mini-Units for Crafts and Creative Accessories

Written By:

Mary Jane Torok
Jan Nell Reed

APPENDIX 1.0 - A-2

"CREATE AND MAKE IT"

Introduction

This is a set of individualized instruction mini-units for teaching craft skills. Included are:

1. Two required activities, "Exploring Alternatives" and "Project Selection".
2. Four project activities for specific crafts.
3. Seven enrichment activities on craft-related items.

Interests in particular crafts change frequently; therefore, activities and instructions included in this unit are for crafts currently popular. Individual teachers can add and delete projects based on current trends, students' needs and teacher experiences. Students with additional skills can also add to the resources. A teacher's willingness to try new ideas and keep informed of new resources, as well as to allow students the freedom of selection, will aid in making this unit successful.

A suggestion for using this unit is to put craft activity ideas on an index card and keep these in a recipe box. Each student can pick cards that meet his/her individual need and design his/her own program for "Create and Make It".

Project Activities

1. Embroidery/Crewel and Needlepoint
2. Applique
3. Macrame
4. Ojo De Dios (God's Eye)

Enrichment Activities

1. Recycling
2. Craft History
3. Consumer Crafts
4. Advertising Your Craft
5. Crafts with Children
6. Crafty Bulletin Boards
7. On Your Own

Required
Activity 1

EXPLORING ALTERNATIVES

COMPETENCY: Identify alternatives of craft activities possible.

ACTIVITIES:

1. Observe teacher display of completed craft projects and resources.
2. List as many possible projects as you can.
3. Go on a "Library Treasure Hunt". Using the school library, find as many craft resources as you can in thirty minutes. List the crafts, NOT the books.

NOTE TO TEACHER: Display completed craft projects. Other resources such as patterns, instructions and new ideas can be kept in an ongoing file that is open to students.

Required
Activity 2

PROJECT SELECTION AND PLANNING

COMPETENCY: Select a project, list resources needed and set time goals.

ACTIVITIES:

1. Select a craft project that you think you can complete in the time you have.
2. Complete the "Planning Sheet" and turn in to your teacher. (Appendix 1.0, A-5)
3. Complete "Goals for the Week" assignment sheet and turn in to your teacher. (Appendix 1.0, A-6)

NOTE TO TEACHER: Have copies of "Crafts Activity Planning Sheet" and "Goals for the Week" dittoed for students. These could be put in the crafts file drawer for easy access. Individual conferences at this point are most important for all students. Evaluating goals and accomplishments at the end of EACH week is also very helpful.

CRAFT ACTIVITY PLANNING SHEET

Your Name _____

Craft Activity Selected _____

Time Required to Complete _____

Include everything you will need on the following chart.

Materials I have at home	Materials at school	Things to buy

How will craft be used? _____

APPENDIX 1.0 - A-6

GOALS FOR THE WEEK

WEEK	GOALS FOR THE WEEK	I ACCOMPLISHED
1		
2		
3		

16

Project
Activity 1

EMBROIDERY/CREWEL AND NEEDLEPOINT

COMPETENCY: Complete the following embroidery/crewel stitches:

1. Outline Stitch
2. French Knot
3. Backstitch
4. Satin Stitch
5. Cross Stitch
6. Chain Stitch
7. Lazy Daisy Stitch

Complete an individual project in embroidery/crewel.

Complete five needlepoint stitches:

1. Continental Stitch
2-4. Student's choice of stitches

Complete an individual project in needlepoint.

NOTE TO TEACHER: Patterns that students would like to embroider can easily be put on dittoes and transferred to project with tracing paper and a sharp pencil.

See Coats and Clark's Book No. 226-A, Needlepoint Stitches, for illustrated pictures.

ACTIVITIES:

1. Complete the embroidery/crewel sampler.
2. Complete required activities 1 and 2.
3. Complete an embroidery/crewel project of your choosing.
4. Complete a needlepoint project of your choosing.

Contents:

1. Sampler pattern, materials needed and instructions.
2. Basic embroidery stitches.
3. Instructions for needlepoint coaster.

SAMPLE FOR EMBROIDERY

Materials Needed:
1 embroidery hoop
1 embroidery needle
scissors for clipping threads
embroidery floss in colors you want--use three strands to complete the sampler
8 x 11 inch square of firmly woven cotton (or something to embroider on)
tracing paper

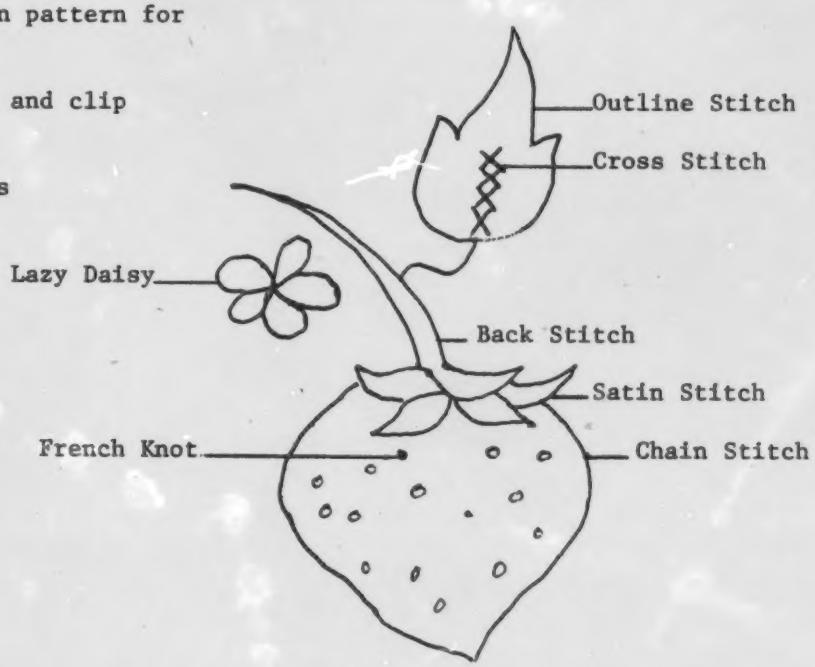
Directions:

1. Transfer sample pattern to your fabric. To do this, put tracing paper colored side down on your fabric. Put the sample pattern on top and pin all layers together. With a sharp pencil or pen go over sampler lines. Remove pattern and tracing paper.

2. Follow directions on pattern for stitches.

3. Make stitches small and clip all threads.

4. When finished, press carefully.

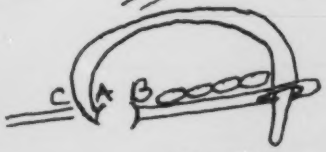


BASIC EMBROIDERY STITCHES

RUNNING STITCH - Move needle in and out of fabric one stitch at a time. Used to hold something together temporarily or as a decoration.

OUTLINE STITCH - Put needle in fabric at stitch length position and bring out in middle of stitch. Yarn can be held above or below stitch, but should be held the same way each time. Used for lines or mending seams.

BACKSTITCH - Come up at A, go down at B, then up ahead at C. Repeat, going back into the same hole as the previous stitch. Keep all stitches the same size. Used for outlining or mending seams.

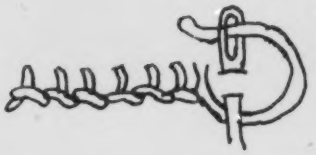


SATIN STITCH - Insert needle for stitch length. Carry yarn behind work and bring up in position for next stitch. Stitches should be close together and make a smooth surface. Good for filling a design or mending holes.

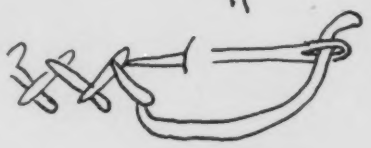
CHAIN STITCH - Put needle in next to upcoming yarn and bring it out at stitch length position. Loop yarn under needle. Pull needle through. Next, put needle in link next to upcoming yarn. Bring needle up at stitch length position. Loop yarn under needle. Put needle through. Decoration only.

FRENCH KNOT - Wrap thread around needle holding thread down with thumb; put needle into fabric at starting point. Decoration.

BLANKET STITCH - Make vertical stitch so needle passes over loop of yarn. Put needle through. May serve as finish for applique or on edges so they will not ravel.

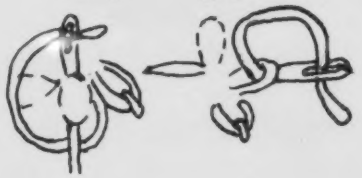


CATCH STITCH - Bring needle to top of fabric. Going diagonally, insert needle point left taking a small stitch. Repeat going in a zigzag manner. Good for borders and where two fabrics meet or join.



CROSS STITCH - Make diagonal stitch and cross it with another diagonal stitch. For cross stitch rows, make a row of diagonal stitches. Cross each stitch in the row with another diagonal stitch. Used for borders and where two fabrics join.

LAZY DAISY STITCH - Same as chain stitch except when thread goes over loop it is taken to the underside and brought up in the center. Repeat at right angles to make a daisy design. Used as decoration.



APPENDIX 1.0 - A-10

NEEDLEPOINT COASTER
by Joyce Smith

Materials Needed:

. Small plastic canvas. These may be purchased at Merribee Needlecraft Co. (Mesa, Tempe, Phoenix) Cost--10 for 49¢.

. Large needle.

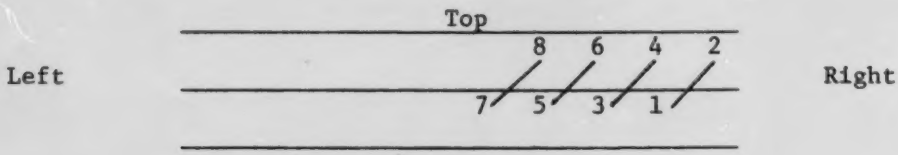
. Knitting yarn (wool, nylon, acrylic, etc.).

Steps:

1. Thread needle with a single strand of yarn.

2. Work canvas with a continental stitch.

3. How to do stitch:



. Start at top of canvas.

. Always work from right to left of canvas.

. To begin, hold 1" of yarn at back of canvas, work over end. All other strands may be started and finished by running each under stitches on wrong side of work.

. Place needle at lower left-hand corner of stitch (#1), cross canvas diagonally, and insert needle into the upper right-hand corner (#2). Cross behind the stitch you just completed and go into the lower left-hand corner of the stitch on the left (#3). Again cross diagonally (#4).

Continue across the row. To work the next row, turn the canvas upside down so that the next row will be worked from right to left.

. The edge of the coaster should be worked with 2 strands of yarn. Work diagonally over the plastic edge working 2 stitches in corners.

NOTE: This stitch will cover the back of the canvas as well as the front and so produces a strong durable needlepoint piece.

Project
Activity 2

APPLIQUE

COMPETENCY: Complete an applique sampler and project.

ACTIVITIES:

1. Complete an applique sampler of one of the following: circle, heart, square, or triangle.
2. Complete required activities 1 and 2.
3. Complete an applique project of your choice.

NOTE TO TEACHER: Applique samplers can be used for simple quilting projects as can applique projects.

CONTENTS:

1. Directions, materials needed, and pattern for sample project.
2. Patterns for "Sunbonnet Sue" and "Overall Bill".

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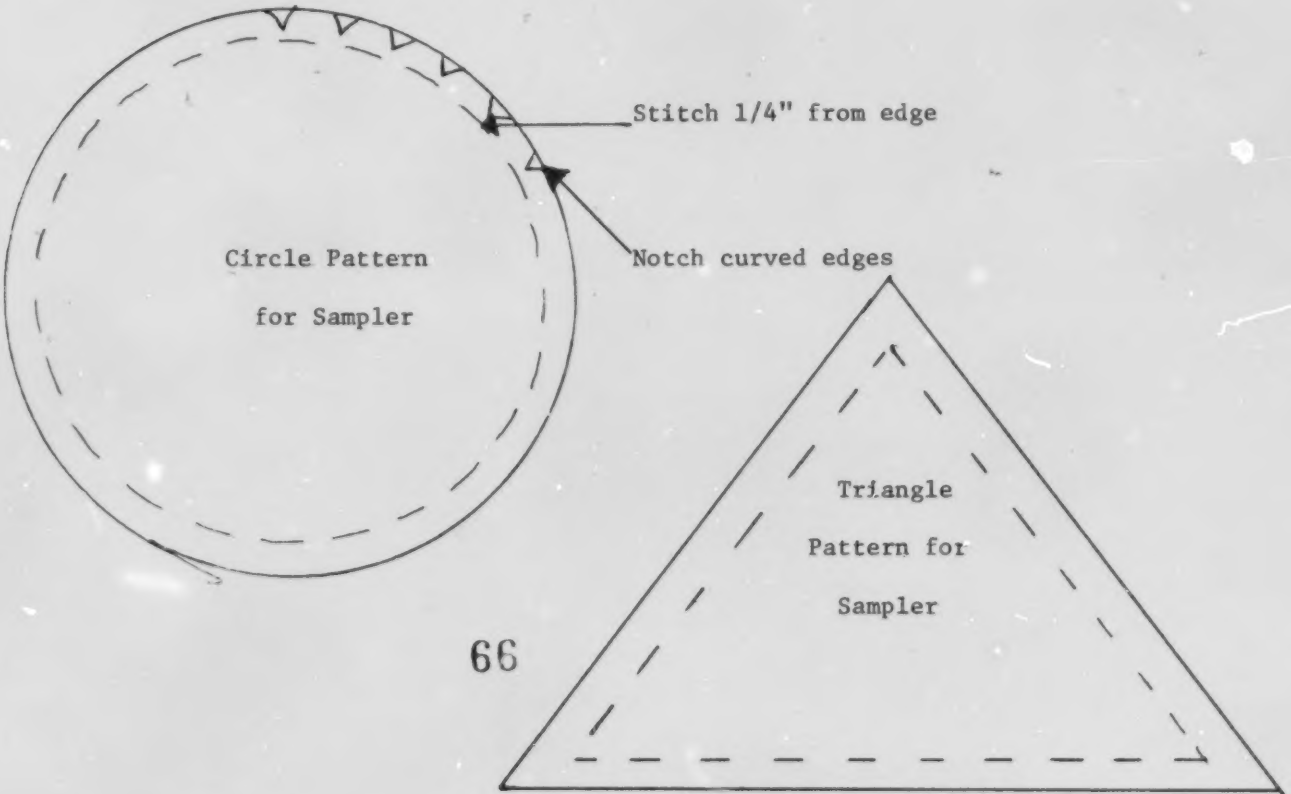
APPLIQUE SAMPLER

Materials Needed:

1 fabric square 6" x 6"
small fabric scrap for shape to be appliqued
thread
shears
pins

Directions:

1. Cut out shape to be appliqued on to larger square.
2. Stitch 1/4" from the edge on the sewing machine.
3. Clip curves going in, and notch all curves going out.
4. Press under on 1/4" stitching line. Miter all corners.
5. Pin carefully on 6" x 6" square. Sew by hand using favorite stitch.
6. Press.



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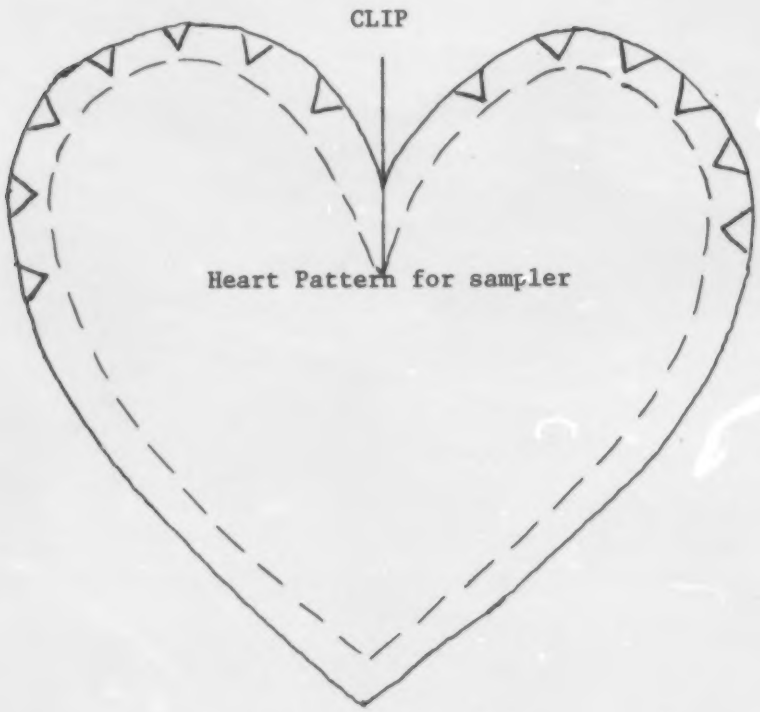
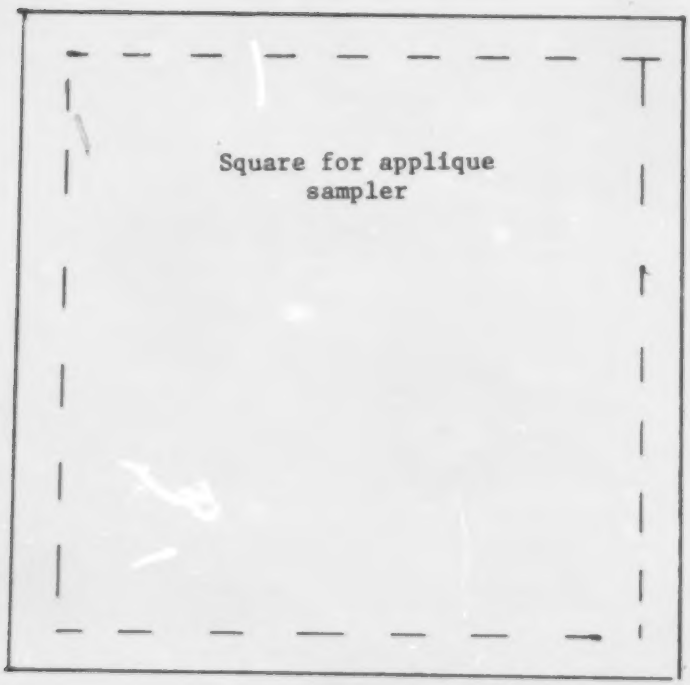
APPLIQUE SAMPLER PATTERNS (Continued)



Notch curved edges

Miter all corners



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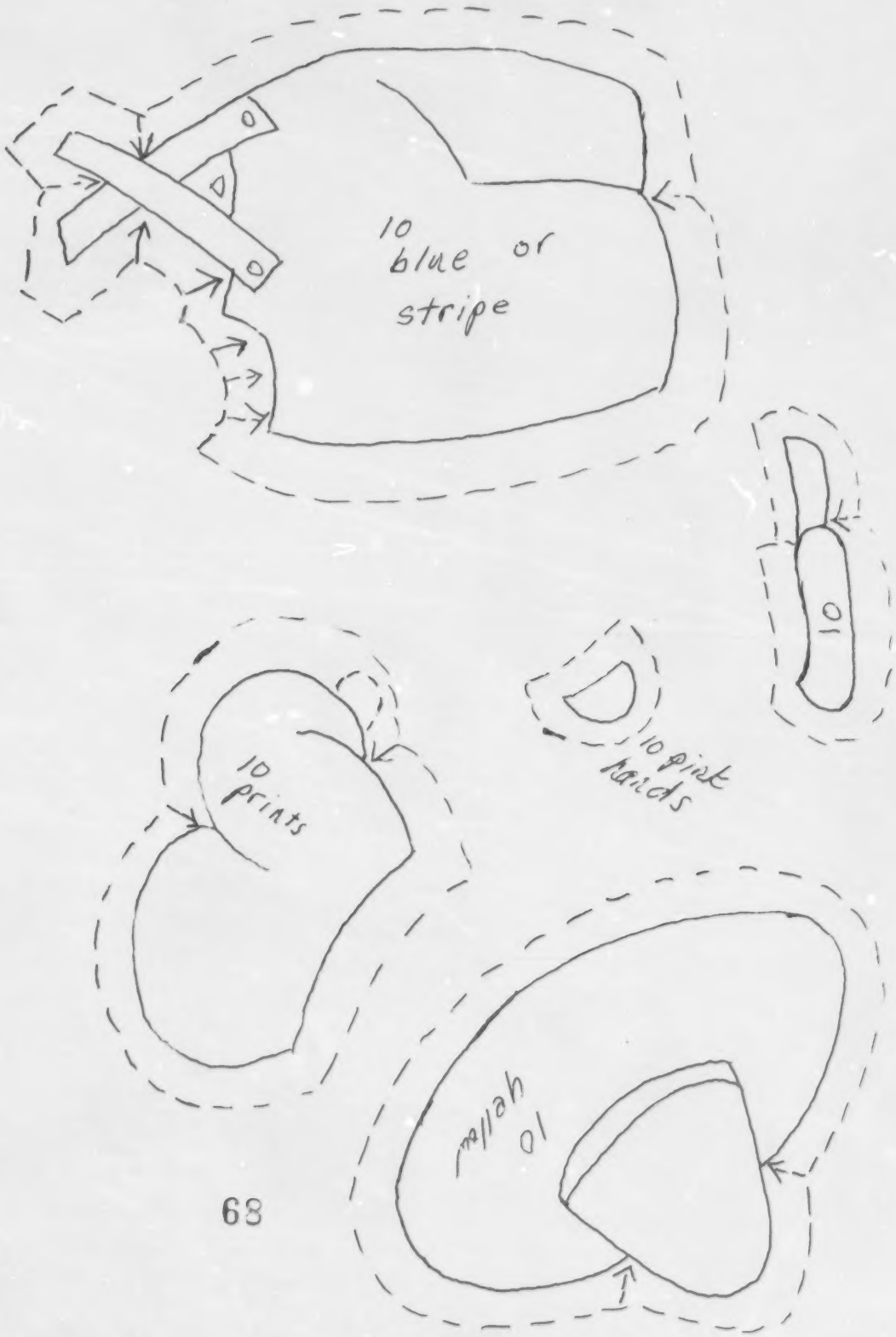
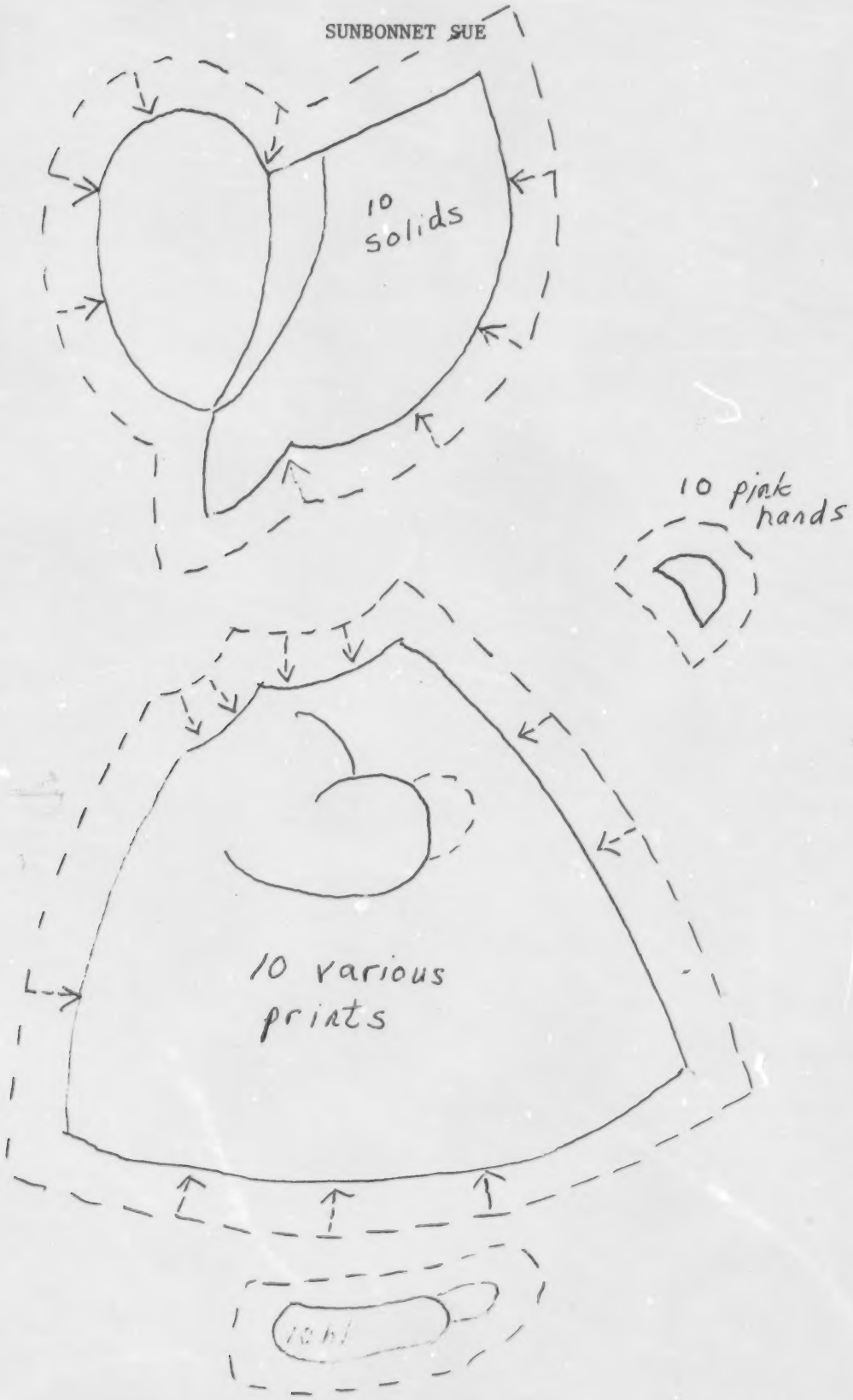
OVERALL BILL




SUNBONNET SUE
10 solids
10 pink hands
10 various prints

Project
Activity 3

MACRAME

COMPETENCIES: Tie the following macrame knots:

1. Lark's Head
2. Double Half Hitch
3. Square Knot
4. Overhand Knot

Complete an individual project in macrame.

ACTIVITIES:

1. Complete macrame key chain sampler. (Appendix 1.0, A-18)
2. Complete required activities 1 and 2.
3. Complete a macrame project. Suggestions are:
    1. Macrame owl (Appendix 1.0, A-19, 20)
    2. Pot slings (Appendix 1.0, A-21)
    3. Belts

NOTE TO TEACHER: See macrame appendix for all supplies needed and directions for sampler. Also included are ideas for projects.

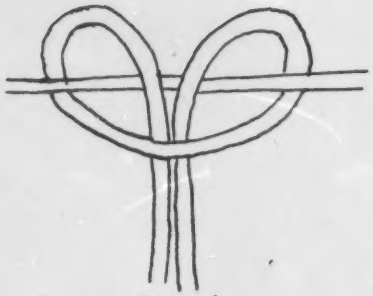
CONTENTS:

1. Basic Knots
2. Macrame Key Chain Sampler Pattern
3. Two Macrame Owl Patterns
4. Pot Sling Pattern

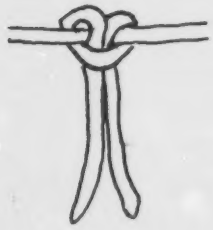
APPENDIX 1.0 - A-17

BASIC MACRAME KNOTS

LARK'S HEAD



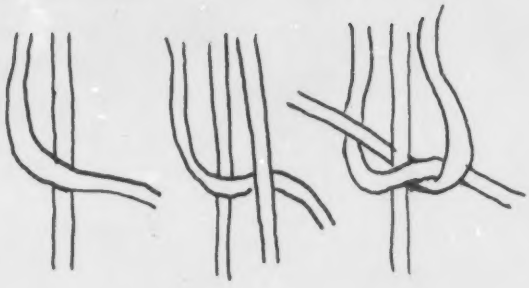
Step 1



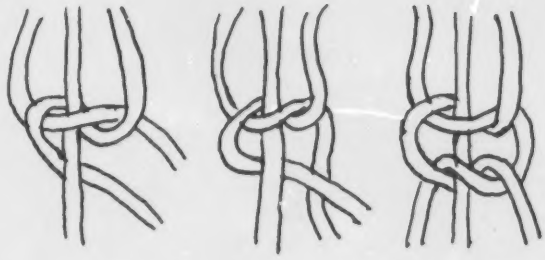
Step 2

Tieing a Butterfly

SQUARE KNOT

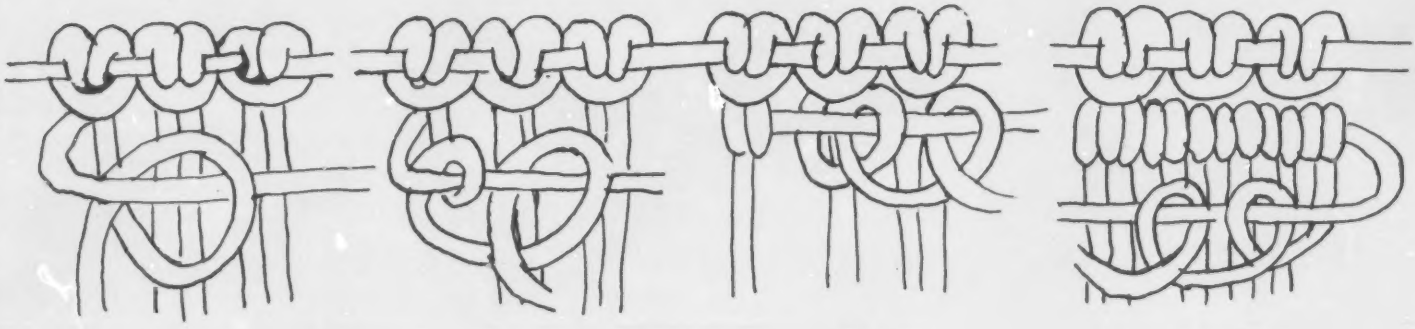


Step 1 Step 2 Step 3



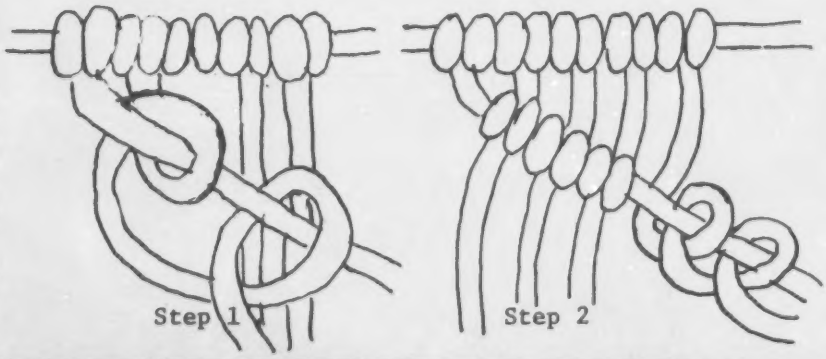
Step 4 Step 5 Step 6

HORIZONTAL DOUBLE HALF HITCH



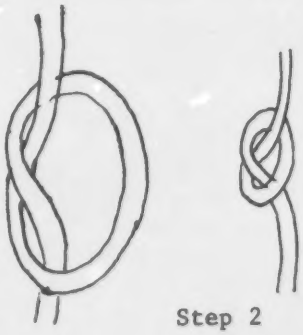
Step 1 Step 2 Step 3 Step 4

DIAGONAL DOUBLE HALF HITCH



Step 1 Step 2

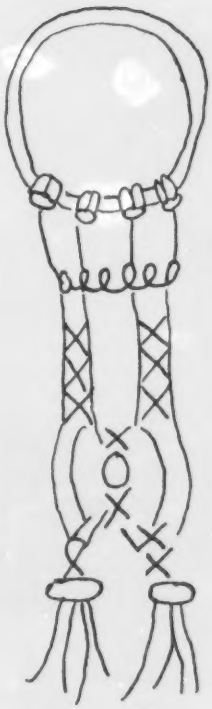
OVERHAND KNOT



Step 1 Step 2

MACRAME KEY CHAIN SAMPLER

Materials Needed:
- 1 key ring
- 6 yards rug yarn or lightweight jute
- 1 small bead if desired
- Masking tape



Directions:

1. Cut 4 1-1/2-yard cords and put on ring by folding in half and using Lark's Head knot ( ). You now have 8 ends. Tape ring to table.
2. Leave a 1" space and tie double half hitches across in a straight line ( ).
3. Using the first 4 cords, tie 3 square knots ( ). Repeat for the next 4 cords.
4. Using the middle 4 cords, tie a square knot.
5. If desired, slide a bead on the 2 middle cords.
6. Tie another square knot.
7. Using first 4 cords, again, tie 2 square knots. Repeat with last 4 cords.
8. Join first 4 knots with an overhand knot. Repeat with second 4 cords. Trim ends as desired.

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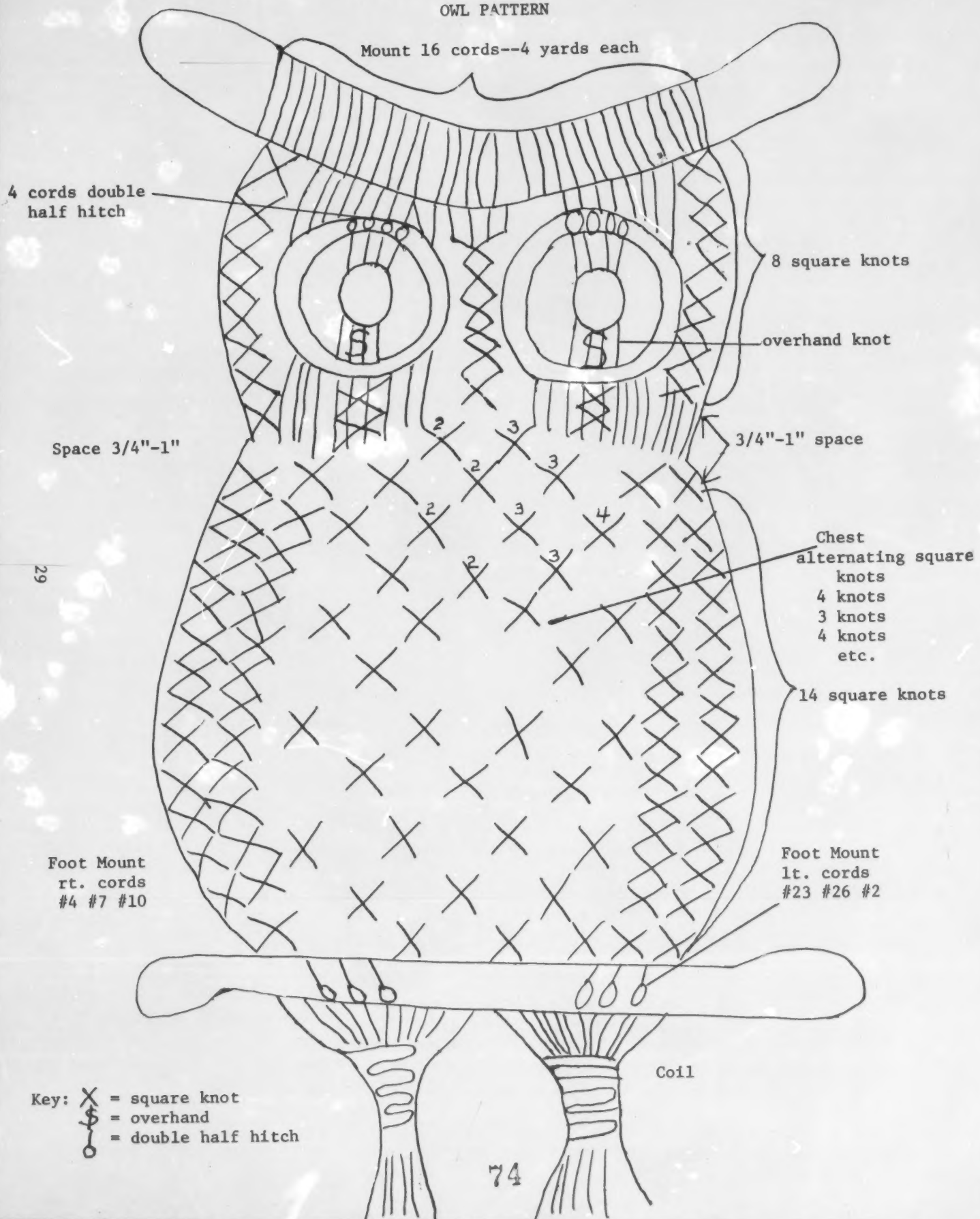
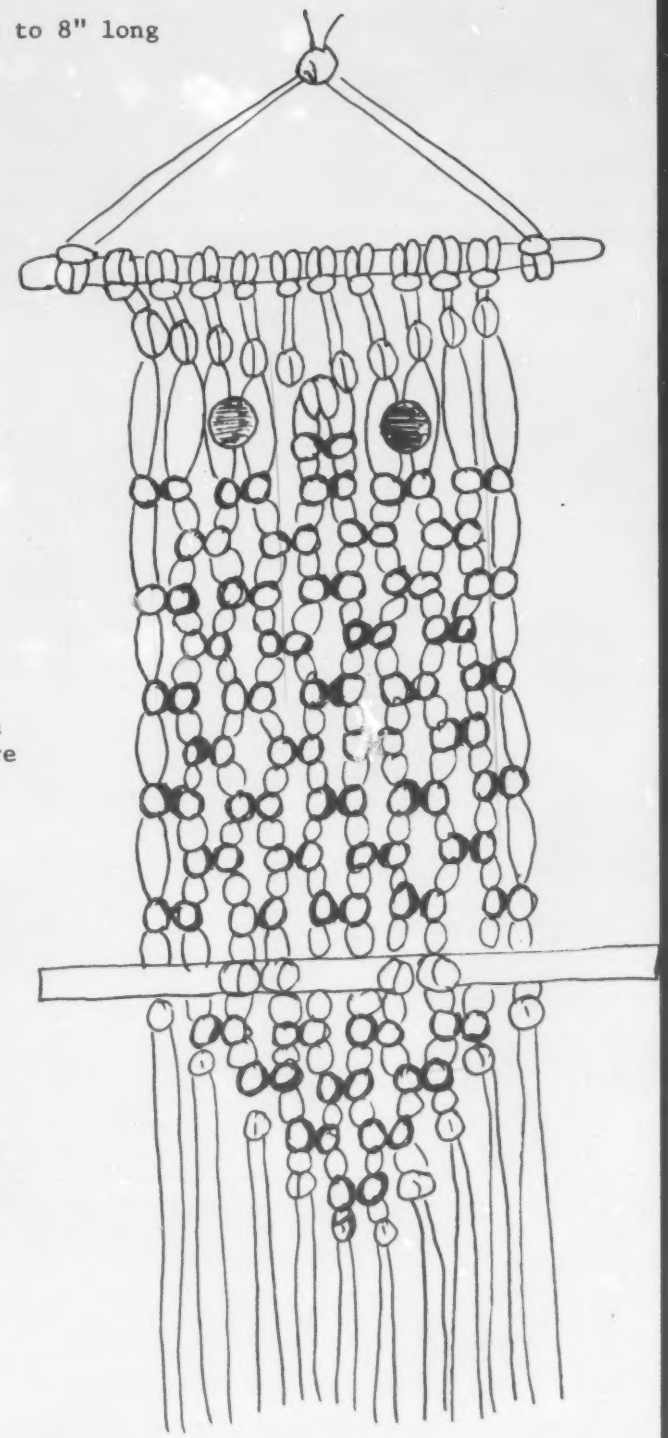
OWL PATTERN


Mount 16 cords--4 yards each
4 cords double half hitch
8 square knots
overhand knot
Space 3/4"-1"
3/4"-1" space
Chest alternating square knots
4 knots
3 knots
4 knots
etc.
14 square knots
Foot Mount rt. cords #4 #7 #10
Foot Mount lt. cords #23 #26 #2
Coil
Key: = square knot
= overhand
= double half hitch

MACRAME OWL

Materials Needed: 20 yards rug yarn cut into 2-yard lengths
2 1/4" dowels or twigs--6 to 8" long
2 beads this size



Directions:

1. Fold all yarn strands in half. Join strands to 1 stick by using starting knot. You will now have 20 working strands.

2. The V pattern design is made by using diagonal double half hitches over a knot bearing cord. This is done by holding the left outside cord (the knot bearer) at a 45 degree angle in your right hand over the other cords. Double half hitch the next 9 strands onto the knot bearer from left to right. Repeat this, starting with right outside strand working from right to left. Join knot bearers in the middle with same knot.

3. Tie 2 square knots using middle 4 strands by having center 2 as filler cords. String beads on the 6th and 7th and 14th and 15th strands. Tie a square knot on each end with 4 remaining strands. All square knots should be in the same horizontal row.

4. The next row will have 4 square knots leaving 2 strands on each end free. Repeat last part of step 3 and first part of 4 so that you have 5 rows with 5 square knots and 4 rows with 4 square knots. Alternate rows of 5 then 4.

5. Add second stick by looping ( ) 5th, 6th, 7th, and 8th over the stick then 13th, 14th, 15th, and 16th strands.

6. Make a row with 4 square knots, then 3 square knots, 2 and 1.

7. Tie an overhand knot using 2 strands under the finished knots.

8. Cut ends to desired length straight across being sure not to cut too short.

9. With extra strands make a hanger by using the beginning knot.

Symbol Meanings: Square Knot ( ) Beginning Knot ( )
Double Half Hitches ( ) Overhand Knot ( )

MACRAME
POT SLING

Fig. 1

Fig. 2

Materials needed: Rubber bands
Masking tape
Small beads
40 yards jute or heavy cord

Directions:

1. Measure and cut 4 cords 7 yards long and 4 cords 3 yards long.

2. Fold all cords in half and place together so that the 7 and 3 yards are alternated. Join cords (Fig. 1) using about 1 yard of cord to wrap. Use another cord to form hooked end (Fig. 2). Ends are tucked under wrapping.

Fig. 3

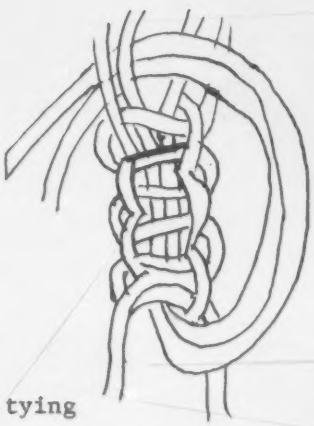
3. Separate cords so that you have 4 set with 2 short strands in the middle and a long strand on either side. The longer cords are used for knotting and the shorter for filling.

4. Tape cords to table or work area. Butterfly cords by starting about 1 yard from the top. Use rubberbands to hold butterflies.

5. Take one set of 4 tying the first step of the square knot for 7 inches. The cords will turn or twist as you are knotting (Fig. 3). Repeat with other 3 sets of 4 cords.

6. Use one set of 4 cords, measure down 2" and tie 3 square knots. Bring 2 filler cords over the knots and down between the filler cords at the top (Fig. 4). Pull through to form button. Tie a square knot to hold button. Measure 2 inches and repeat twice more. Repeat on other 3 sets.

Fig. 4



7. Measure 2" and repeat step number 5 on each set.

8. Measure 2", tie a square knot--repeat until you have 5 square knots. Repeat on other sets.

9. Tie an overhand knot by joining all cords together.

10. Trim ends different lengths and put beads on each strand by tying an overhand knot under each bead.

11. Place pot or candle in center above the overhand knot. Position 4 cords so pot doesn't fall out. Hang up.

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Project
Activity 4

OJO DE DIOS
God's Eye

COMPETENCY: Complete an Ojo de Dios.

ACTIVITIES:

1. Complete required activities 1 and 2.
2. Complete a God's Eye using instructions.

NOTE TO TEACHER: Ditto instruction sheet and have available to students in file. This is a good activity for slow learners. Students can recycle sticks and yarn if they want to.

CONTENTS:

1. Instruction sheet for God's Eye including variations.

Ojo de Dios

An Ojo (oh-ho) de Dios or Eye of God is a type of Paho, a prayer offering used by the Hiuchol Indians of Mexico to bring good and erase evil.

To make the basic Ojo form:

1. Select two sticks (dowels, tree limbs, popsicle sticks, toothpicks, or skewers).

2. Cross the sticks so that they meet at the middle. You can pre-glue or wire them to make them easier to hold or begin to tie the yarn at the intersection and start winding each arm consecutively until secure.

3. To prevent slipping, put masking tape on the sticks so that they have a rolled strip on each stick extending to the end. Roll so that the sticky side is out.

4. Begin winding again so that you are winding over the tape. When going around each stick, keep the yarn fairly tight, working counterclockwise if you are right-handed.

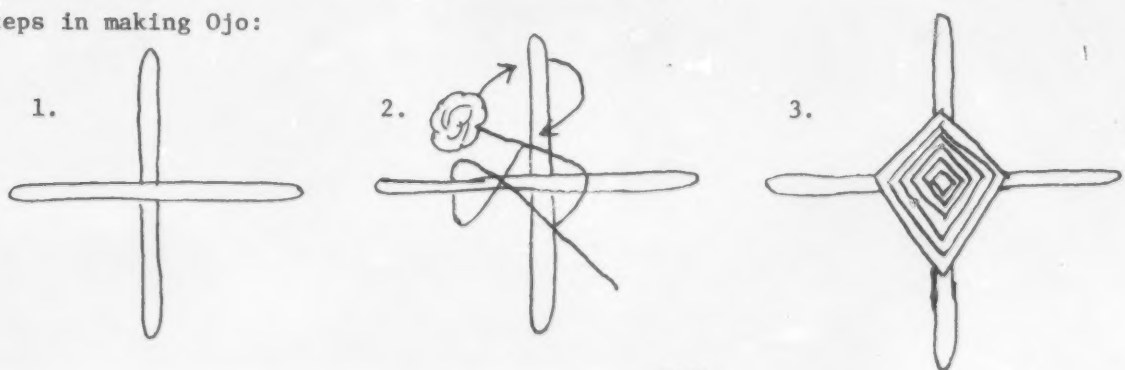
5. To change colors, merely knot the new yarn so that the knot falls on the back side of the Ojo.

6. Finish off the ends with pompoms. To make a pompom, wrap yarn around a piece of cardboard the size you want the pompom to be. Tie the loops on one end with a piece of yarn, and cut those of the other end. Remove the cardboard, and with a piece of yarn, wrap the uncut part about 3/4 inch from the end.

7. For interesting variations:

   a. For an elongated look, wrap yarn twice around opposite sticks and once on others.
   b. To create spaces between the strands, go around each stick 2 or 3 times before going to the next one.
   c. To create a star shape, go around every other stick twice so that you are wrapping on one side or opposite sides. When you have about 1 to 2 inches, cut and tie on back; then begin other side of stick. When star is size you want, go back to original pattern.
   d. To create an indented look, wrap yarn under dowels instead of over.

Steps in making Ojo:



Enrichment
Activity 1

RECYCLING

COMPETENCY: Recycle old materials into useable accessories.

NOTE TO TEACHER: An extra corner in your room or just a cardboard box can hold lots of recycling "junk". Students and teachers can bring things in at random.

ACTIVITIES:

Find old materials at home, school or second-hand store and recycle them into a useable accessory for yourself or your home. Some suggestions are:

1. Blue jean purse
2. Blue jean skirt
3. Embroider an old piece of clothing
4. Planters or containers for small objects out of tin cans, cartons, boxes, etc.
5. A piece of clothing patched creatively. (Appliques make good patches)
6. Wall hangings
7. Patchwork projects made from fabric scraps including:

    Pot holder
    Book marker
    Head band or scarf
    Hat
    Glass case
    Pillow
    Shirt

Enrichment
Activity 2

CRAFT HISTORY

COMPETENCY: Appreciate the historical background of a popular craft.

NOTE TO TEACHER: Good reports can be used on bulletin boards in your room, library, or office. Local newspapers might also be used--or the school paper.

ACTIVITIES:

Research a craft you are interested in and write a news story about it. Include in your story:

1. A "catchy" first paragraph to interest your readers.
2. Where the craft originated and how it developed.
3. Popular uses of the craft today.
4. Interesting information you can add.
5. At least one picture to illustrate your story.

Some suggestions for crafts to research are:

1. Quilting
2. Applique
3. Macrame
4. Candle making
5. Needlepoint
6. Quilling

*NOTE: Be sure to include your resources!

Enrichment
Activity 3

CONSUMER CRAFTS

COMPETENCY: Compare cost and quality of handmade and commercially made articles.

ACTIVITIES:

Compare the cost and quality of three similar craft projects. Use the following sources:

1. Handmade article
2. Novelty shop article
3. Discount store article

Write a summary of your findings and include the following:

1. Cost of each
2. Quality of each
3. Which you would buy and why

NOTE TO TEACHER: Student findings can be shared in reports or bulletin boards. A copy of each report could also be included in the student craft file drawer.

Enrichment
Activity 4

ADVERTISING YOUR CRAFT

COMPETENCY: Write an advertisement that will sell a completed craft project using buyer appeal.

NOTE TO TEACHER: Advertisements may be used as an incentive for students to sell their products. They can be encouraged to take outstanding work to local stores and boutiques.

ACTIVITIES:

Make up an advertisement for your completed craft project. First decide what the motivation should be for your product. Suggestions are:

1. Low cost
2. Sex appeal
3. Ecology
4. Status
5. Health
6. Appearance
7. Family
8. Popularity

Create your advertisement and place on construction paper as it might appear in the newspaper or in a magazine.

Enrichment
Activity 5

CRAFTS WITH CHILDREN

COMPETENCY: Teach a child a craft project appropriate to his/her age level and ability.

ACTIVITIES:

Teach a craft to a young child. To find a craft suitable for the age group you are working with, use resources available to you. Bring the completed project to school to display. (Be sure to tell the child that you will bring it back SOON!) Put a sign by the project telling the age of the child and a quick evaluation of your experience.

NOTE TO TEACHER: Students may be able to work with a local preschool or kindergarten. This could carry over into child development learnings.

Enrichment
Activity 6

CRAFTY BULLETIN BOARDS

COMPETENCY: Make a bulletin board or display on crafts.

ACTIVITIES:

Alone, or with a group, make a bulletin board on something you have learned about crafts. Remember the following "hints":

1. PLAN AHEAD
2. Use a catchy title
3. Know what you're trying to get across
4. Be neat

NOTE TO TEACHER: This activity is especially good for the slow learner. Bulletin boards can advertise your crafts unit in the library, office or other places on campus. Volunteer a home economics bulletin board for the art or social studies departments.

Enrichment
Activity 7

ON YOUR OWN

COMPETENCY: Provide students with the opportunity to write their own assignments.

ACTIVITIES:

Write your own assignment related to any area of crafts. Have it approved by your teacher before beginning the project.

APPENDIX 1.2A

TRANSFER METHODS AND PROCEDURES

1. Commercial transfers purchased from pattern company catalogs or other companies dealing in crafts.

2. Transfer pencil purchased from specialty stores. Design is traced or drawn on paper in reverse then outlined with transfer pencil. Paper is placed on top of material and iron is applied to transfer the design.

3. Tracing or carbon paper and a sharp pencil. Design is placed on top of material with tracing or carbon paper under design. Trace over design.

Materials needed for transfer methods:

1. Commercial transfer or design--original or copied from coloring books, original drawings, etc.; and a transfer pencil.

2. Tracing paper or carbon paper.

3. Needle--crewel--size would depend on fabric.

4. Fabrics (denim, burlap, homespun, etc.).
   Garments (shirts, blue jeans, etc.).

5. Yarn or thread--crewel yarn, cotton mercerized embroidery thread, etc.

6. Embroidery hoop--metal or wood.

APPENDIX 1.2B

DECORATE YOUR CLOTHES CONTEST

RULES FOR CONTEST

1. Pay entry fee of 25¢. (Will be used for prizes.)
2. Anyone enrolled at (school name) can enter. Work should be done by the person entering.
3. Decorations can be done on any piece of wearing apparel by using the following methods:
   a. Embroidery (thread)
   b. Liquid embroidery
   c. Nail heads
   d. Applique
   e. Etc.
4. Apparel will need to be inspected and numbered before starting.
5. Deadline date _____.
6. Pick up entry form from _____, Home Economics Building.

EVERYONE WINS LOTS OF PRIZES AND CATEGORIES SHOW YOUR CREATIVITY

ENTRY FORM FOR DECORATE YOUR CLOTHES CONTEST

NAME _____ NUMBER _____

ADDRESS _____ TELEPHONE _____

DESCRIPTION OF ENTRY:

DECORATE YOUR CLOTHING CONTEST JUDGING FORM ENTRY NUMBER _____

	5	4	3	2	1
Originality of design and/or decoration method					
Workmanship (Neatness inside and out, stitch quality)					
Wearability (Knots tied securely, decorative method suitable to fabric and type of garment)					
Variety (Stitches and/or design method)					
Amount of time and effort spent					

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Total Points _____

MACRAME OWL KEY CHAIN

Materials needed:
- 1 key ring
- 5 yards rug yarn or lightweight jute
- 2 small beads for eyes
- Masking tape

Directions:

1. Cut 5 1-yard cords and put on key ring by folding in half and using beginning knot ( ). You now have ten ends. Tape ring to table.

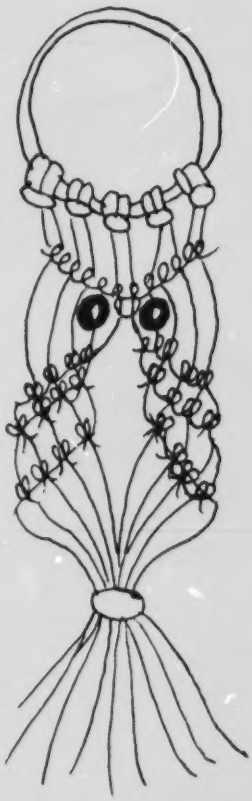
2. The V pattern is made by using diagonal double half hitches ( ) over a knot bearing cord. This is done by holding the left side cord at a 45 degree angle in the right hand over the other cords. Double half hitch the next 4 cords onto the knot bearer from left to right. Repeat using right outside cord going from right to left. Join knot bearer cords in the middle with the same knot.

3. String beads on second cord from center on each side.

4. Use left-hand center cord as a knot bearer going from center left tying double half hitch knots. Repeat on right side.

5. Repeat step 4 twice more using the cord which tied the first double half hitch as the knot bearer. (See illustration.)

6. Join all cords in center close to other knots with an overhand knot. Trim ends about 2 inches from knot.



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APPENDIX 1.5 - A-1

MAKE YOUR OWN PATCH

(This activity incorporates transfer and embroidery skills as well as machine applique.)

Directions:

1. Trace a pattern with a transfer pencil.

2. Pin pattern on top of fabric you will use as your patch, with tracing side next to material. Apply a hot iron to transfer pattern onto material. Be careful not to burn material by holding iron on fabric too long. Paper should not be moved until you are sure pattern is transferred to material.

3. Embroider design on patch.

4. Cut patch from material.

5. Cut adhesive fabric the same size as patch.

6. Place adhesive fabric between patch and place on area to be covered on garment. Using a wet cloth, place on top of patch and iron until cloth is dry. Patch should be attached to garment.

7. Use a machine to zigzag around edge of patch to secure patch to garment.

APPENDIX 1.5 - A-2

DECORATIVE ACCESSORIES
Madeline Minchin

Knit Hat

- Glue a paper plate (a deep Chinette plate) to a 12-inch round cardboard cake platter.
- Mark 29 points off with a pencil. These are approximately 1-1/4" apart. Be sure you have 29.
- Cut notches out with scissors on each of these marks.
- Use masking tape on back of cardboard to anchor yarn.
- Pull yarn through Notch No. 1 and then down to Notch 16 and around Notch 17 and then up to Notch 2 and around Notch 3.
- Continue around the notches until it is completely covered with yarn like a spider web.
- Weave the yarn in and out, over one and under the next using a needle.
- Put as much yarn as possible on the plate and tie the last yarn to the piece of yarn you started with in the beginning that was taped to the back of the plate.
- Finish the ends by using a double thread of yarn and go in and out the loops at the ends. Tie this yarn to fit the head. Elastic may be used if desired.
- Add a tassel if desired. The hat can be pulled to a point or kept round and used as a pillbox.

45

"Dough Dolls"

- Recipe: (1 C. flour, 1/4 C. salt, 1/2 C. water). Knead and store in a plastic covered container. Add glycerine for softer dough and to make it easier to manage.
- Shape dough into a doll. Ideas for dolls may be secured from pictures.
- Use patience--do not hurry. Use a garlic press for hair.
- Cover your dough and part of your unfinished doll with Saran Wrap so it will not dry too fast. It is easier to add parts to your doll if it is not dry. Avoid cracks if possible. Fill cracks with glue after it is baked, if desired.
- Bake at 350°, 45 minutes to 1 hour. Remove when it is a "cookie brown." Use "Pam" to prevent it from sticking to the pan.
- Glue lace to parts desired.
- Paint with white acrylic paint any parts which you want to look like calico. Use felt pens to add designs.
- Use water colors or acrylic paint. Do not use oils since they take too long to dry.
- Spray with plastic spray.
- Antique.
- Glue on an old board.

Dough Baskets

- Use 4 C. flour, 1 C. salt, 1-1/2 C. water. Knead, roll out, and cut in strips.
- Use a round mixing bowl or rectangle casserole as a mold for placing your strips of dough.

Dough Baskets (continued)

- Start first with two twisted rolls of dough on edge of outside bowl. The bowl is placed upside down on a cookie sheet.
- Use a lattice technique in placing dough strips on outside of bowl.
- Bake at 350° for one hour until toasty brown.
- Spray with plastic spray.

DECORATIVE ACCESSORIES
Madeline Minchin

Bird House Made from a READER'S DIGEST

- Fold every other page in half throughout the book.
- Tear or cut the page that you did not fold halfway down lengthwise.
- Fold a right angle on the page to make the slanted roof on the bird house.
- Open folded book out like a fan and glue on cardboard so it will remain open. Cut the cardboard to coincide with the curve of the roof.
- Glue cardboard on back to make it more substantial.
- You may cut holes in the birdhouse or glue small branches for small birds.
- Paint the entire house with Gesso (this takes patience but it is most important to cover the entire surface).
- Paint with vinyl flat paint.
- Antique with stain.
- Add some artificial ivy on the birdhouse roof--place small birds to complete.

Candleholders from Clay Pigeons

- Purchase clay pigeons in quantity and share them with your "crafty friends".
- Glue clay pigeons together and then glue braid on to give a sculptured effect.
- Paint with Gesso.
- Paint with flat vinyl paint.
- Antique.

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Tissue Art

- Paint background of canvas with acrylic paint.
- Shape tissue by cutting, tearing or twisting it in various shapes.
- Add tissue to canvas board with acrylic medium matte finish.
- I find that flowers are my favorite subjects to use with tissue. They have a third dimension when completed.

Plaster Domes (add pictures of your choice)

- Purchase: Molds and casting plaster to make domes
  Decal it)
  Crackle it) Directions for using are clearly explained
  Age it) on bottles that you purchase
  White acrylic paint

Mrs. Butterworth (syrup bottle)

- Make hat of cardboard
- Glue lace or trims to the bottle
- Paint with Gesso
- Paint with flat paint of your choice
- Antique

APPENDIX 1.7

SAFETY PIN NECKLACE
Pat Matthews

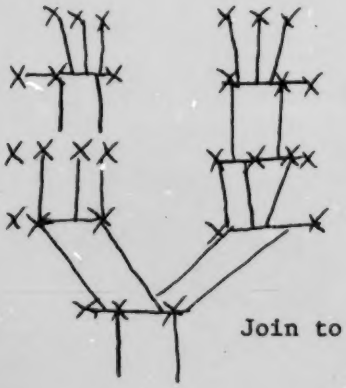
Materials needed: 175-180 "00" safety pins
Beads--3mm, 2 strands (4 beads per pin)
or Seed Beads, 2 vials (6 per pin) or
any combination that will fill shank of pin.

Directions:

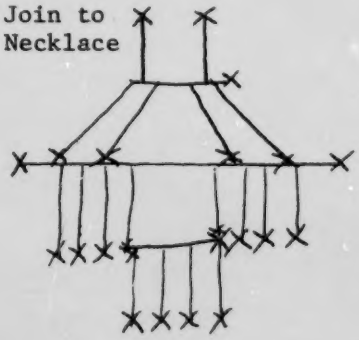
1. Bead 130 pins, 16 of these will be used for Pendant, 45 pins are used to join.

2. Assemble as per diagram. Head of pin is marked with "X" on diagram. Horizontal lines are pins without beads and hooked to the back.

Pendant #1



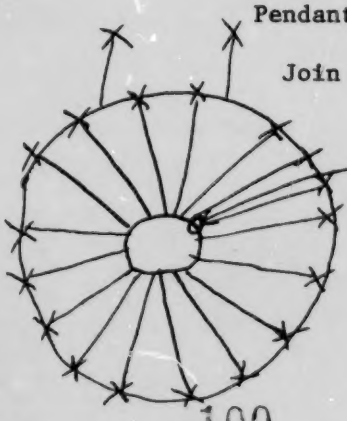
Join to Pendant



Pendant #2

Join to Necklace

Thread pins and beads on wire to form circle



Place bead between pins in center

Use 1 oat bead or 2 3mm beads or 4 seed beads between pins on outer portion

Topical Outline

2.0 Individual Selection of Clothing, Patterns and Fabrics

- 2.1 Color Effects on Figure
- 2.2 Line Effects on Figure
- 2.3 Texture Effects on Figure
- 2.4 Application of Line Design and Color to Selection of Patterns and Fabric(s)
- 2.5 Figure Types and Sizes
- 2.6 Analysis of Yardage and Notions for Purchasing Patterns and Fabrics
- 2.7 Analysis of Interfacing, Lining, and Underlining for Purchasing Patterns and Fabrics
- 2.8 Analysis of Construction Skills and Selection of Patterns and Fabrics

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Vanderhoff, Margil, Franck, Lavina, and Campbell, Lucille. Textiles for Homes and People. Boston: Ginn & Co., 1973.

Warch, Constance. Illustrated Guide to Sewing. Fullerton, California: Plycon Press, 1975.

Educational Materials

American Thread, Consumer Sewing Education Dept., High Ridge Park, Stamford, Connecticut 06905 (pamphlets, filmstrip)

Butterick Fashion Marketing Co., 161 Sixth Ave., New York, New York 10013 (transparencies, pamphlets, books)

J. C. Penny Co., Inc. Educational and Consumer Relations, 1301 Avenue of the Americas, New York, New York 10019 (filmstrips)

McCalls Pattern Co., Educational Dept., P. O. Box 9119, Manhattan, Kansas 66502

Sears Roebuck & Co., Consumer Information Dept. 703, Chicago, Illinois 60611 (filmstrips)

Simplicity Pattern Company, Simplicity Educational Division, 200 Madison Ave., New York, New York 10016 (pamphlets)

2.0 Individual Selection of Clothing, Patterns and Fabrics
2.1 Color Effects on Figure

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 2.1 Identifies the effect that color has on enhancing individual. (SELF AWARENESS)	2.1 NOTE TO TEACHER: Each student will prepare a personal information sheet which will be used for indicating color, line and design, texture and pattern type, and size for self.
LEVEL II Creates color combinations and analyzes effect of color on self and others in terms of emotional appeal, personal preference, personal coloring, figure size, and color principles. (SELF AWARENESS) (DECISION MAKING)	The teacher gives an illustrated talk on the effect of color showing what happens when: complementary colors are put together; colors of different intensities are used; and colors of differing values are employed. It is most effective when large pieces of tagboard are used. The effect of color on haircolor, complexion, eye color and size of figure should also be demonstrated by the teacher.
LEVEL III Analyzes how the fashion industry uses color to influence consumer buying. (ECONOMIC AWARENESS) (CAREER AWARENESS)	NOTE TO TEACHER: For determining becoming and unbecoming colors in co-ed classes, the following are suggestions: - Teacher purchases or collects white knit T-shirts (cuts front from back at seams in order to provide two colors from one knit shirt and dyes them various colors) - Teacher dittoes design of tab-front shirt and cuts a neckline out of colored construction paper - Teacher obtains, from a thrift store, a number of men's shirts in a variety of colors - Teacher obtains fabric collars in various colors

LEVEL II ACTIVITIES

2.1 NOTE TO TEACHER: Use resources to study color psychology, symbolism, and moods listed in bibliography.

Large pieces of colored tagboard, paper or fabric swatches are displayed, and students indicate their feelings about each color in simple words or phrases. Students compare feelings about colors. If there are differences, why might this be true?

Students read Hailstones and Halibut Bones, The Luscher Color Test, or other similar books to comprehend psychology of color in clothing and the total environment.

Teacher creates color combinations by placing glass custard cups or small glasses in a circle on an overhead projector. Food coloring is used to squeeze drops of the primary colors into appropriately placed containers. Teacher mixes colors to create the secondary and intermediate colors. Students view the results.

Students read and teacher leads discussion based on "Color Facts" (Appendix 2.1A, 1-2).

Students experiment with color swatches to analyze the effects of different combinations, values and intensities (Appendix 2.1B). Students note how manufacturers combine colors in clothing in the marketplace.

LEVEL III ACTIVITIES

2.1 Students investigate color trends by fashion industries for current season and explain how these trends are created.

Suggested questions such as these are answered:

1. What colors are being used this season?
2. What event(s) seem to be related to the use of these special colors?
3. What fashion displays have you seen which have special appeal to you in terms of your own wardrobe?
4. How are customers influenced by color in the displays?

Individual students determine whether or not they wish to pursue the study of color for the purpose of using it in a future career interest. An extra project on color in the fashion industry may be developed by interested students.

COMPETENCIES	LEVEL I ACTIVITIES
	2.1 (continued) Each student lists what colors he/she believes are becoming and unbecoming to him/her. Then each student uses one of the above methods for determining colors to check his/her own perceptions. Other students suggest additional becoming colors. This activity should be done in small groups for short periods of time. Each student watches to ascertain reactions of other people when he/she wears certain colors. Students view a teacher demonstration on the effect of color on size by comparing two equal figures. Paper or fabric cutouts in light and dark colors, bright and dull colors, and white and black are placed on the figures. Compare the optical illusions created. (Figures in Appendix 2.2D 1-4 may be used.) Students then conclude what effect color may have on the size of objects, especially the human figure. Each student adds to his/her personal information sheet, listing his/her best colors in terms of personal coloring and figure type and gives reasons for choices.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES

2.1 (continued)

*Each student chooses three or four color combinations for clothing coordinates according to personal preference, figure size, skin tones, hair and eye color; and explains in writing or orally reasons for his/her choices using information discussed in "Color Facts" and gained from "Color Experiments".

2.2 Line Effects on Figure

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 2.2 Identifies the effect that line and design have on an individual and his/her figure type. (SELF AWARENESS) LEVEL II Analyzes the effect that use of line and design have on creating a desired optical illusion. (BEGINNING COMPETENCY) LEVEL III Creates a desirable optical illusion for an individual with special figure needs such as might be designed by the fashion industry. (CAREER AWARENESS)	2.2 NOTE TO TEACHER: For female students use patterns for basic dresses available in pattern catalogs. The basic dress is left open in the back for ease in making dress fit individuals with various figure types. For male students, use shirts or T-shirts. Apply contrasting stripes in different widths to simulate lines. (Stripes may be of felt, masking tape, flannel, etc.) Collars, pockets, belts, sleeves, and cuffs may be made of same or contrasting fabric. Prints, plaids and diagonal fabrics could be used for other dresses or shirts. Transparencies on line and design are available from McCall's, Simplicity, or Butterick pattern companies. 3M also has them (see bibliography). A student can tell if he/she is the correct weight for his/her height by using Dairy Council Booklets, "A Boy and His Physique" and "A Girl and Her Figure". Students view teacher demonstration on several students, mannequins or dolls with different figure types wearing a plain basic dress or shirt. The effect of horizontal, vertical, diagonal, and curved lines, and large and small designs are demonstrated. Students observe a teacher demonstration in which he/she uses transparencies with overlays, to show the effect of lines and fabric designs. Students may even use transparancies by themselves. Each student indicates on his/her personal information sheet what lines may be most becoming to him/her. Reasons are given for the choices.

LEVEL II ACTIVITIES

2.2 NOTE TO TEACHER: Obtain "Optical Illusion Chart" and filmstrip, "Optical Illusions Through Line" by McCall Pattern Company.

Students play game of word scramble, find a phrase related to design and define five of the terms. (Appendix 2.2A)

Students view filmstrip, "Optical Illusions Through Line" and compare what is seen on the chart, "Optical Illusion," from McCall's.

The teacher or selected students present an illustrated talk with the use of pictures or transparencies on the opague or overhead projector on proportion, balance, rhythm, and emphasis as applied to clothing and textile items and how these elements are used to create an optical illusion.

Students find examples of line and design from old pattern catalogs or old magazines and write an explanation for each example. (Appendix 2.2B, "Line and Design Activities")

Each student analyzes his/her own figure type and identifies lines and designs appropriate to create desired optical illusions. Record on "Personal Analysis Chart". (Appendix 2.2C)

LEVEL III ACTIVITIES

2.2 Students volunteer to visit clothing specialty shops or specialty areas in department stores which are designed for special needs (e.g., tall persons, youth cut, European cut, half sizes, maternity, mature figures, etc.). Students study the garments viewed in the shops to see how the items are designed to enhance the person who is tall, short, heavy busted, stout, or very slim; and the person who has short arms, long torso, etc.

Each student writes his/her findings and teacher leads a class discussion on these findings.

Students may volunteer to read a variety of resources to find out what fashion designers suggest for figures which are not considered the "ideal fashion type".

Students analyze current and old pattern catalogs, fashion magazines and fashion forecast filmstrips from Sears, noting the changes in fashion and describing fashion trends in terms of line and design in the following items:

- Skirts
- Pants/Slacks
- Hemlines/Lengths
- Sleeves
- Blouses/Shirts
- Decorative Detail/Trim
- Necklines
- Belts
- Jackets/Coats

2.3 Texture Effects on Figure (continued)
2.4 Application of Line Design and Color to Selection of Patterns and Fabrics
2.5 Figure Types and Sizes

COMPETENCIES	LEVEL I ACTIVITIES
	2.3 (continued) Students hold, handle, feel, and crumple fabrics of different textures and describe what type of outfit or garment would look best for each fabric, or find patterns from old catalogs and match them to fabrics. Each student indicates on his/her personal information sheet what types of textures in fabrics enhance his/her figure type and gives reasons for his/her choices.
LEVEL III 2.4 Applies line, design and color principles in choosing a wardrobe for others in a variety of situations in accordance with current fashion trends. (DECISION MAKING)	2.4 (Not taught here)
LEVEL I 2.5 With teacher guidance, the student selects a commercial pattern appropriate for his/her body measurements. (BEGINNING COMPETENCY) LEVEL II Compares and evaluates commercial pattern size in terms of figure variations. (BEGINNING COMPETENCY)	2.5 NOTE TO TEACHER: Sizing of patterns and correct measuring procedures for an individual needs to be demonstrated using both metric and standard measurements. - female measurements - male measurements The teacher demonstrates measuring students to determine pattern size. Students, in pairs, measure each other.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES

2.4 (Not taught here)

2.5 Students may view filmstrip "Figure Your Figure Type."

NOTE TO TEACHER: Students compare differences of pattern companies by examining garments constructed from basic patterns of the same size. Pattern companies could include Butterick, McCalls, Simplicity, Vogue, Spadea, Modes Royal. Male students examine basic shirts and slacks and female students examine basic shells to compare the following:

- differences in location of darts for body fullness, e.g., bust darts, front and back hip darts

2.4 Each student is assigned a case study of a special problem to solve (see Appendix 2.4, 1-2, Planning A Wardrobe Utilizing Line, Design and Color). Situations should include a variety of figure problems, occupational activities, and age groups. A class display is made of the solutions for the special problems. In some problem cases, students may need to interview or observe occupational attire. Also, fashion trends must be kept in mind when choosing the wardrobe.

2.5 Students select a pattern for an individual other than themselves, with special figure variations. Criteria for judging pattern to fit figure variation:

- Will dart placement need to be changed?
- Will the waistline need to be relocated?
- Will the hip area need to be enlarged?
- Will the bust area need to be enlarged?
- Will the sleeve, shirt, pants, or skirt need to be lengthened?
- Will the shirt need to be tapered?
- Will the waistline circumference need to be increased or decreased?

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 2.3 Identifies the effect that texture of fabrics has on an individual and his/her figure type. (BEGINNING COMPETENCY) (SELF AWARENESS) LEVEL II Analyzes the effect of texture of fabrics on the appearance of clothing and an individual's figure type. (DECISION MAKING) Analyzes how texture is used by the fashion industry to create illusions. (CAREER AWARENESS) (ECONOMIC AWARENESS)	2.3 Students participate in exercise on fabric textures. (See Appendix 2.3) NOTE TO TEACHER: Make silhouettes of male and/or female figures and cover each with different types of fabrics: soft and sleazy, shiny, deep pile, crisp, heavy, and bulky. (Appendix 2.2D, 1-4) Students view teacher demonstration of silhouettes with fabrics of different textures and discuss the illusions created and answer such questions as: - What do bulky fabrics do to size? - What do clinging, shiny fabrics do to various figures? - At what time of year would this texture be worn? - At what activities can this type of fabric be worn? - Does one want the effect of fabrics to be different for various occasions?

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
	2.2 (continued) Students analyze three current fashions and three past fashions in terms of line and design and suggest what special figure needs would be emphasized or minimized by the wearing of each. This activity may be a teacher-led class discussion or an individual activity. Students are given problem figure types in case situations and suggest what lines would seem appropriate for the individual. If possible, students draw the suggested solution on the problem figure silhouettes (Appendix 2.2D, 1-4).
2.3 Students study store windows or displays and analyze the effect of texture on conveying an idea to customers. Some ideas to consider are: - Does the texture of an article make it appear smaller or larger? - How are the textures emphasized through the use of accessories or other display items? - Are moods expressed through the various textures?	2.3 Each student selects and visits one marketing outlet and identifies at least five different textures used in articles of wearing apparel. Students report any unusual textures used. Students also report how texture is used in the decor of the store which reinforces the garments displayed. Some students may even decide to interview the personnel in the display department to find how texture is used in display work to create optical illusions. Students who select and visit speciality shops or speciality areas in department stores report how texture is used in designing clothes for individuals with special figure needs. Each student determines how he/she can utilize the study of texture in his/her future life.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES

2.5 (NOTE TO TEACHER continued)
- slope and length of shoulder
- length of bodice or shirt from underarm to waist
- sleeve length
- bodice or shirt length
- length from shoulder to hemline
- length from neckline to waistline
- length from waistline to hemline

Students compare basic patterns and pattern sizing information for the following sizes: Female - Girl 14, Teen 13, Miss Petite 14, Misses 14, Half-Size 14-1/2; Male - Boys' 12 , Teen Boys' 14 , and Men's 34 .

Students complete "Determining Correct Figure Type and Pattern Size: (Appendix 2.5A, 1-2).

2.6 NOTE TO TEACHER: Purchase a pattern, plain fabric, one-way design or napped fabric, and plaid fabric for a skirt or blouse to use for demonstration purposes.

Students view and discuss filmstrip, Stripes, Plaids, Prints by American Thread Company.

Teacher or student demonstrates to small groups the same commercial skirt or blouse pattern lay-out on one-way design, napped or plaid fabric, and a plain fabric to illustrate why additional fabric is needed for garment construction out of fabrics which are not plain.

2.6 The teacher or a student invites to class a person who has a figure with a special need, and this person indicates how he/she made allowances for alterations in amount of yardage needed. Examples of special needs are:
- wears a brace
- unusually large arms
- large bulges such as bust or derriere
- crotch adjustments
- exceptionally tall or short

2.5 Figure Types and Sizes (continued)
2.6 Analysis of Yardage and Notions for Purchasing Patterns and Fabrics

COMPETENCIES	LEVEL I ACTIVITIES
2.5 (continued) LEVEL III Changes commercial patterns to fit another person with special figure variations. (BEGINNING COMPETENCY) (DECISION MAKING)	2.5 (continued) Each student compares his/her measurements with a chart to determine which pattern type and size is most appropriate (e.g., boys', teen boys', men's, young junior/teen, junior petite, junior, misses, half-size). Each student then indicates on his/her personal information sheet which pattern type and size he/she should purchase.
LEVEL I 2.6 Demonstrates ability to identify the appropriate quality and amount of fabric and notions for selected view on commercial pattern envelope. (BEGINNING COMPETENCY) (DECISION MAKING) LEVEL II Demonstrates the ability to accurately determine the amount of additional fabric necessary when one constructs a garment from plaids, stripes, one-way designs, and napped fabrics. (DECISION MAKING) Analyzes the changes in fabric requirements when one makes major alterations on a garment for a figure with special needs. (DECISION MAKING)	2.6 NOTE TO TEACHER: Prepare transparencies for use on overhead projector or large chart to display the information found on the back of the pattern envelope. Various qualities of fabrics and several widths of fabric should also be available. Teacher demonstrates how to interpret the information on the back of the pattern envelope, various qualities of fabrics, and various widths of fabrics. Each student uses several pattern envelopes and determines the following for his/her personal size: desired view, amount of yardage required in various widths and suggested notions.

2.6 (continued)

NOTE TO TEACHER: Thermofax the back of a pattern envelope which shows the additional amounts of yardage required for the above types of fabrics and prepare worksheet to be completed by the students which would indicate they understand the necessity for purchasing additional fabric.

*Students complete worksheet on additional fabric.

COMPETENCIES	LEVEL I ACTIVITIES

2.6 (continued)

Students view "Slide Presentation for Selection of Pattern, Fabric and Notions" to assist them in learning about fabric stores. (Appendix 2.6)

NOTE TO TEACHER: Set up a mock fabric store including the following:
- various pattern envelopes
- fabric samples of various widths

Students determine usual widths of each of the following fabrics: double and single knits, cotton blends, and 100% cotton.

Students work in pairs and use the mock fabric store to select yardage for a pattern by recording the pattern number, width of fabric, pattern view, and amount of fabric needed.

Students select notions for pattern and yardage chosen in mock fabric store. After selection, an analysis of why they were chosen can be given orally.

*Using the mock fabric store, each student selects a pattern envelope, a suitable fabric and appropriate notions to coordinate with it. The pattern number, pattern view to be used, width of the fabric selected, and amount of fabric needed are recorded on a teacher prepared chart. Notions are itemized that will be needed for completion of the garment. A few selected students may give an oral report in class justifying choices made.

2.7 Analysis of Interfacing, Lining, and Underlining for Purchasing Patterns and Fabrics
2.8 Analysis of Construction Skills and Selection of Patterns and Fabrics

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 2.7 Identifies interfacing fabrics and functions and indicates amount of interfacing to be purchased for a particular pattern. (BEGINNING COMPETENCY)	2.7 NOTE TO TEACHER: Samples of interfacing are available from Story Fabric Co., Armo Co., and Pellon Corp. Students view a teacher demonstration on the functions of interfacing. Several types of interfacing are used with various fabrics. Students then examine commercially or hand-constructed articles such as ties, tote bags, blouses, skirts, slacks, and dresses with interfacing to determine the function of interfacing in garments or items.
LEVEL II Classifies and compares interfacing fabrics used for shaping of garments according to cost, time required for application, and function. (BEGINNING COMPETENCY) (DECISION MAKING)	Students read pattern envelopes and determine the following for each envelope: - interfacing suggested - function of the interfacing - amount of interfacing needed
LEVEL III Classifies and chooses suitable underlining and lining fabrics for pattern, fabrics, and construction methods to be used, taking into consideration cost and time required. (DECISION MAKING)	
LEVEL I 2.8 With teacher guidance analyzes skills necessary for various construction processes and selects pattern and fabric appropriate to his/her construction skills. (BEGINNING COMPETENCY)	2.8 NOTE TO TEACHER: An in-depth set of performance tests is available at the beginning of 5.0 Clothing Competencies. It may be desirable to include the pre-tests at this point before the selection of a garment plan. Students complete Construction Processes Check List to determine skill ability (Appendix 2.8A, pages 1 and 2).
LEVEL II Analyzes skills necessary for various construction processes and selects pattern and fabric appropriate to his/her construction skills. (BEGINNING COMPETENCY)	Students use the Garment Plan (Appendix 2.8B, pages 1-3) to assist them in making a decision for proper selection of pattern and fabric.
LEVEL III Analyzes skills necessary for various tailoring processes and selects pattern and fabric appropriate to his/her construction skills. (BEGINNING COMPETENCY)	

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
2.7 NOTE TO TEACHER: Provide various types of interfacing fabric samples (fusable lightweight and non-fusable heavyweight) and outer fabric samples (lightweight and heavyweight) in order for students to conduct the following activity experiment. Each student selects one lightweight and one heavyweight outer fabric sample and indicates appropriate interfacing for each. Students time themselves while applying fusable interfacing to one sample and non-fusable interfacing to the other sample. Students compare time required for application, results, and cost. The sample should be laundered to compare durability.	2.7 Teacher gives a lecture/demonstration on lining and underlining fabrics which includes the following information: - function - selection and quality - price range - construction time
2.8 Students predict the amount of skill necessary for various construction processes, as evidenced by completion of the Construction Process Check List (Appendix 2.8A, pages 1 and 2). Students use Garment Plan (Appendix 2.8B, p. 1-3).	2.8 Students predict the amount of skill necessary for various tailoring processes, as evidenced by completion of a basic competency check list. Teacher lectures on skills necessary in construction of tailored garment. Each student analyzes his/her skills and selects pattern and fabric for successful completion of a tailored garment. He/she records analysis on Garment Plan Sheet developed for tailoring processes.

Appendix 2.1A-1

COLOR FACTS

By Wilhelmina Satina

FACTORS THAT INFLUENCE COLORS

1. Light
2. Pigment
3. Eyes
4. Brain and Memory
5. Other Colors

THREE DIMENSIONS OF COLOR

1. HUE is the name by which we know a color. It is another name for color such as a family name.

2. VALUE is the lightness or darkness of color.

   a. A value scale is produced by adding white or black to hue.
   b. TINT is a value lighter than the normal color.
   c. SHADE is a value darker than the normal color.

3. INTENSITY is the brightness or dullness of a color.

   a. Colors may be dulled or neutralized by adding some of their complement.
   b. Colors may be made to appear more intense by placement beside their complement.
   c. Colors may be made brighter by adding yellow (except for yellow itself or violet).
   d. A textured surface dulls the intensity of a color.
   e. A shiny surface intensifies a color.

QUALITIES OF COLOR

1. WARM colors have a yellow base.
   Warm colors:
   a. Suggest heat (fire, sun, light)
   b. Appear closer (advance)
   c. Appear lighter in weight
   d. Appear larger in size

2. COOL colors have a blue base.
   Cool colors:
   a. Suggest coolness (ice, sky, water)
   b. Appear farther away (recede)
   c. Appear heavier in weight
   d. Appear smaller in size

3. Any color can be made warm by adding yellow.

4. Any color can be made cool by adding blue.

5. The name of the color suggests the degree of warmth or coolness; e.g., red-violet is warmer than blue-violet.

CLASSIFICATIONS OF COLOR (Prang System)

1. PRIMARY colors are:

   a. According to pigment - red, yellow, and blue.
   b. The only colors found free in natural substances.
   c. The only colors found in pure state.
   d. Those colors from which all other colors are produced.

2. SECONDARY colors are:

   a. Orange, violet and green.
   b. Obtained by mixing two primary colors in equal amounts.

3. The six STANDARD colors are the primary and secondary colors.

4. INTERMEDIATE colors are:

   a. Yellow-orange, red-orange, red-violet, blue-violet, blue-green, and yellow-green.
   b. Obtained by mixing a primary color with a secondary color.
   c. Named by placing primary color first.

5. The COLOR WHEEL is:

   a. Composed of primary, secondary, and intermediate colors.
   b. Two families of related colors - warm and cool.
   c. A part of almost all color systems, but color sequence and number of colors may differ.

6. NEUTRAL colors are black, white, and gray.

OTHER COLOR FACTS

1. Color choice is very individual and includes personal preferences and the way particular colors appear on an individual (skin tones, figure size, hair and eye color).

2. Small print combinations may create illusions of another color. When looking from a distance at a small fine pattern of blue and yellow it may appear green.

Appendix 2.1B

COLOR EXPERIMENTS

NOTE TO TEACHER: The colors listed below are only suggested combinations. Teacher may choose other combinations in different hues using the same color harmonies and value. Variations of swatch sizes and number to simulate prints, accents and harmonies and to create the effects of balance would add depth to color activities. Color wheels should be available for students to observe as they work on color activities. Two books providing much information on color are: Art Principles in Clothing and Illustrated Guide to Sewing. See bibliography for complete information.)

Swatches of fabric or construction paper are cut as indicated in chart below and smaller swatches are placed on the larger ones.

COLOR COMBINATIONS	APPROXIMATELY 8 1/2" x 11" SIZE	ONE-QUARTER OF 8 1/2" x 11" SIZE
Complimentary Colors of Different Values	Pale Blue Navy Blue Pale Blue Navy Blue	Peach Peach Orange Orange
Complimentary Colors of Same Values	Red Green	Green Red
Neutral Colors	Black White	White Black
Cool Colors	Blue	Green
Warm Colors	Red	Orange

Analyze the above combinations of swatches for the following:

Which combination appears to:

a. dull the colors?
b. look more dainty and fragile?
c. create a dynamic, vital appearance?
d. look cooler?
e. look warmer?
f. move away from you?
g. move towards you?
h. reduce apparent size?
i. enlarge apparent size?
j. be more fatiguing to the eye?
k. have one dominant color?
l. intensify each color?

Appendix 2.2A

GAME - PRINCIPLES AND ELEMENTS OF DESIGN AS RELATED TO SELECTING FABRIC

By Pat Matthews

Directions: Unscramble the following terms to find a phrase related to design. Place the circled letters below. Look up term in dictionary or resource book and define in your own words five of the terms.

1. rofm _ _ _ _
2. pseaimhs _ _ _ _ _ _ _
3. sdieng _ _ _ _ _ _
4. nyarmho _ _ _ _ _ _ _
5. nlei _ _ _ _
6. oocrl _ _ _ _ _
7. eeentlm _ _ _ _ _ _ _
8. mlfrao _ _ _ _ _ _
9. enriietpot _ _ _ _ _ _ _ _ _
10. extrtue _ _ _ _ _ _ _
11. liisrnpcep _ _ _ _ _ _ _ _ _
12. rlvatcei _ _ _ _ _ _ _ _
13. caelabn _ _ _ _ _ _ _
14. topopornri _ _ _ _ _ _ _ _ _
15. thyhrm _ _ _ _ _ _
16. nmofrlia _ _ _ _ _ _ _ _
17. riloaznoht _ _ _ _ _ _ _ _ _
18. gnaladio _ _ _ _ _ _ _ _
19. toaiplc slilinuo _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
20. rvecu _ _ _ _ _
21. mraeeeutmsns _ _ _ _ _ _ _ _ _ _ _ _

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

ANSWERS: 1. form 2. emphasis 3. design 4. harmony 5. line 6. color 7. element 8. formal 9. repetition 10. texture 11. principles 12. vertical 13. balance 14. proportion 15. rhythm 16. informal 17. horizontal 18. diagonal 19. optical illusion 20. curve 21. measurements

Appendix 2.2B-1

LINE AND DESIGN ACTIVITIES

By Rita Allen

Use old pattern catalogs or magazines to find examples of the elements and principles of design. Write an explanation for each example.

1. Types of lines
   -Vertical
   -Tee
   -Arrow
   -Wye

   Find one example each of the Vertical, Tee (T), Arrow and Wye (Y) lines. Identify each and explain its effect on the figure. Refer to textbook or resource books to find examples of the various lines.

2. Space Divisions (Proportion)
   -Four examples

   Find examples of each of the four space divisions. Identify each example with a drawing of the space division and explain its effect on the figure.

3. Balance
   -Formal
   -Informal

   Find one example each of FORMAL AND INFORMAL balance. Identify each example and describe why it is formal or informal.

4. Rhythm
   -Radiation
   -Gradation
   -Repetition

   Find three examples of rhythm in clothing. Refer to textbook or resource book for examples of radiation, gradation and repetition. Identify each example and explain how the rhythm was created.

5. Emphasis (Center of Interest)
   -Two examples

   Find two examples of garments with centers of interest and describe the center of interest. Refer to textbook or resource books describing this principle.

6. Necklines
   -V-Shape
   -U-Shape
   -Scoop
   -Crew
   -Turtle

   Find examples of five neckline variations and state the name of each. Explain the effect of each neckline on the figure type.

7. Sleeves
   -Set-in sleeve
   -Raglan
   -Kimono
   -Bell sleeve

   Select sleeve variations and state the name of each. Find examples of four sleeve variations and identify with name of each. Explain the effect each sleeve type would have on figure type.

Appendix 2.2C

PERSONAL ANALYSIS

By Pat Matthews

NAME_____AGE_____

HEIGHT_____WEIGHT_____BUST OR CHEST_____HIPS_____

WAIST_____

Check the items below which best describe your figure.

Figures

_____Short thin
_____Short full
_____Average
_____Tall thin
_____Tall full
_____Other

Neck

_____Short
_____Average
_____Long
_____Other

Shoulders

_____Narrow
_____Average
_____Broad
_____Round

Bust/Chest

_____Small
_____Average
_____Large

Arms

_____Thin
_____Average
_____Heavy

Waist

_____Small
_____Average
_____Large

Hips

_____Narrow
_____Average
_____Wide

Legs

_____Thin
_____Average
_____Heavy

Other Figure Variations

_____Over waist-line bulge
_____Protruding abdomen
_____Sway back
_____Other

List any other characteristics that describe your figure:

For my figure: (Circle answer or provide information in the blank.)

1. I want to look (taller, thinner, shorter, stouter, just as I am).

2. I should wear patterns with the following lines:_____

3. I would like to emphasize a (pretty face, attractive feet and legs, tiny waist).

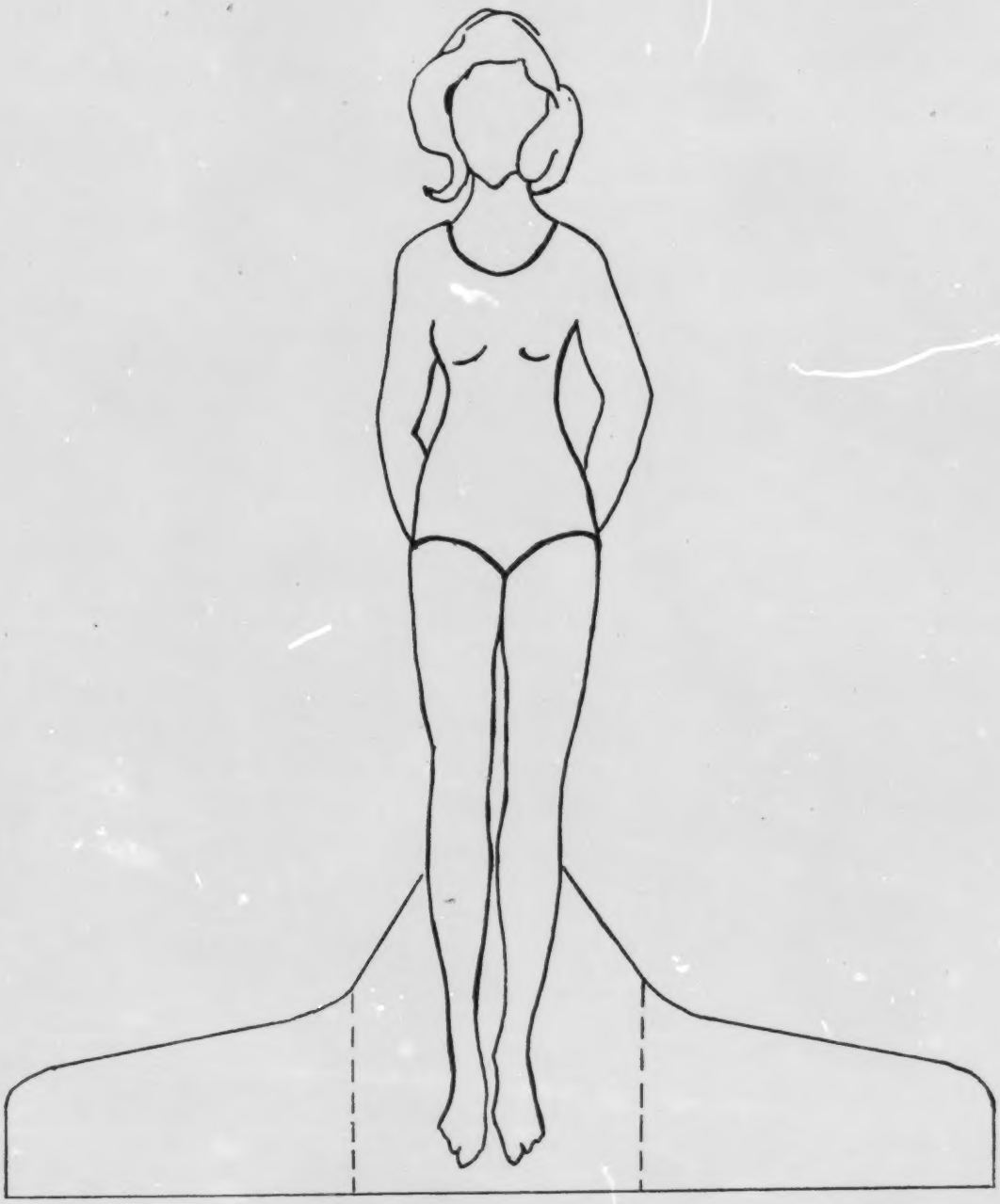
4. I should wear colors that are (light, medium, dark), (bright, medium, dull), (warm, cool).

5. I should wear designs that are (small, medium, large), (vertical, horizontal).

Find an example of one clothing outfit (e.g., shirt and slacks, suit, skirt and blouse, dress) which would enhance your figure type and explain why you made this selection.

Appendix 2.2D-1

PATTERNS FOR MAKING CARDBOARD CUT OUTS OF BASIC FIGURE SHAPES. These shapes can be enlarged by use of opaque projector.

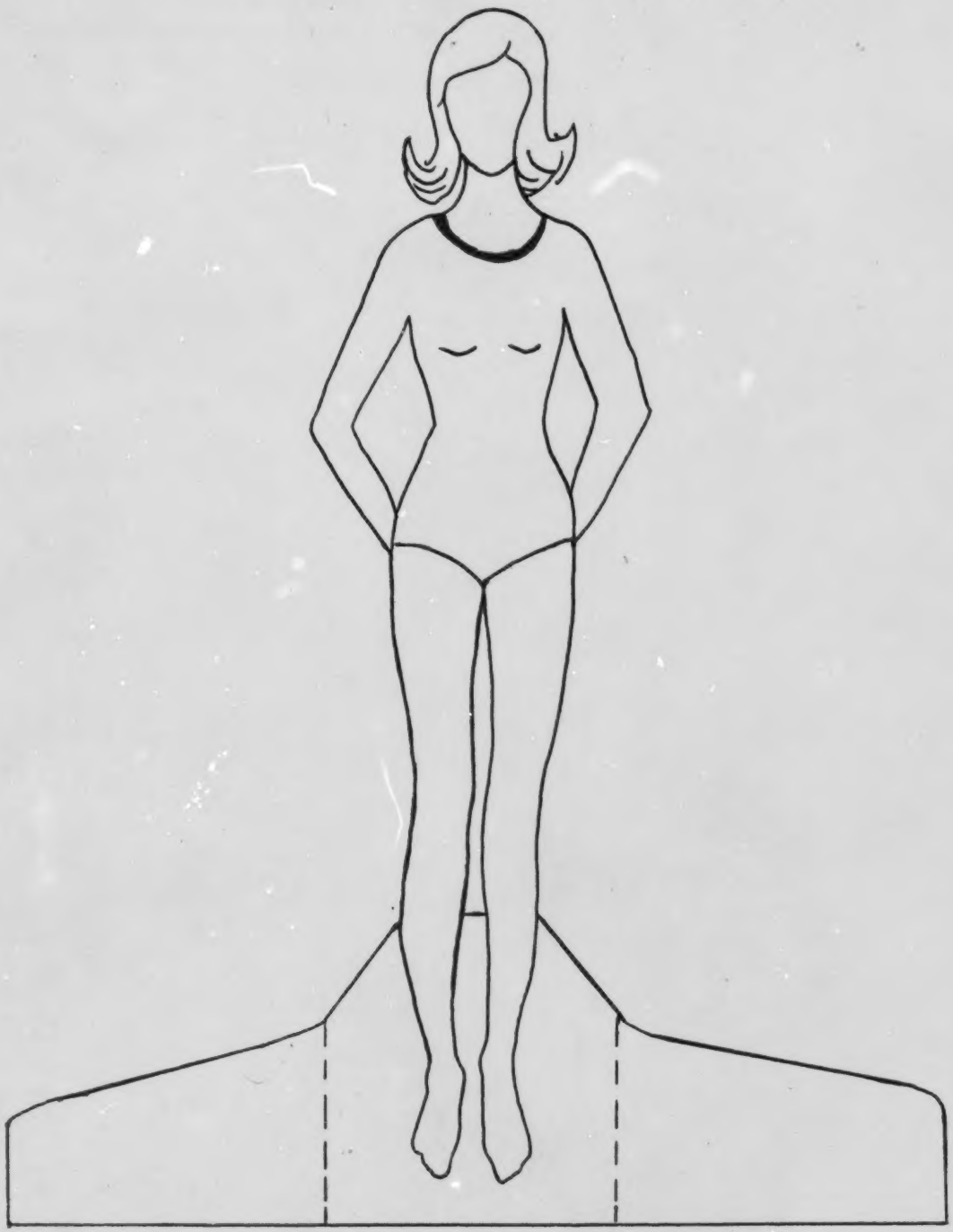


Short Thin Figure

Adapted from PERSONAL DEVELOPMENT Orientation to the World of Work Series, The Curriculum Development Center for Kentucky

G. Owens, Curr. Dev. Cntr., U.K., 843-17

Appendix 2.2D-2

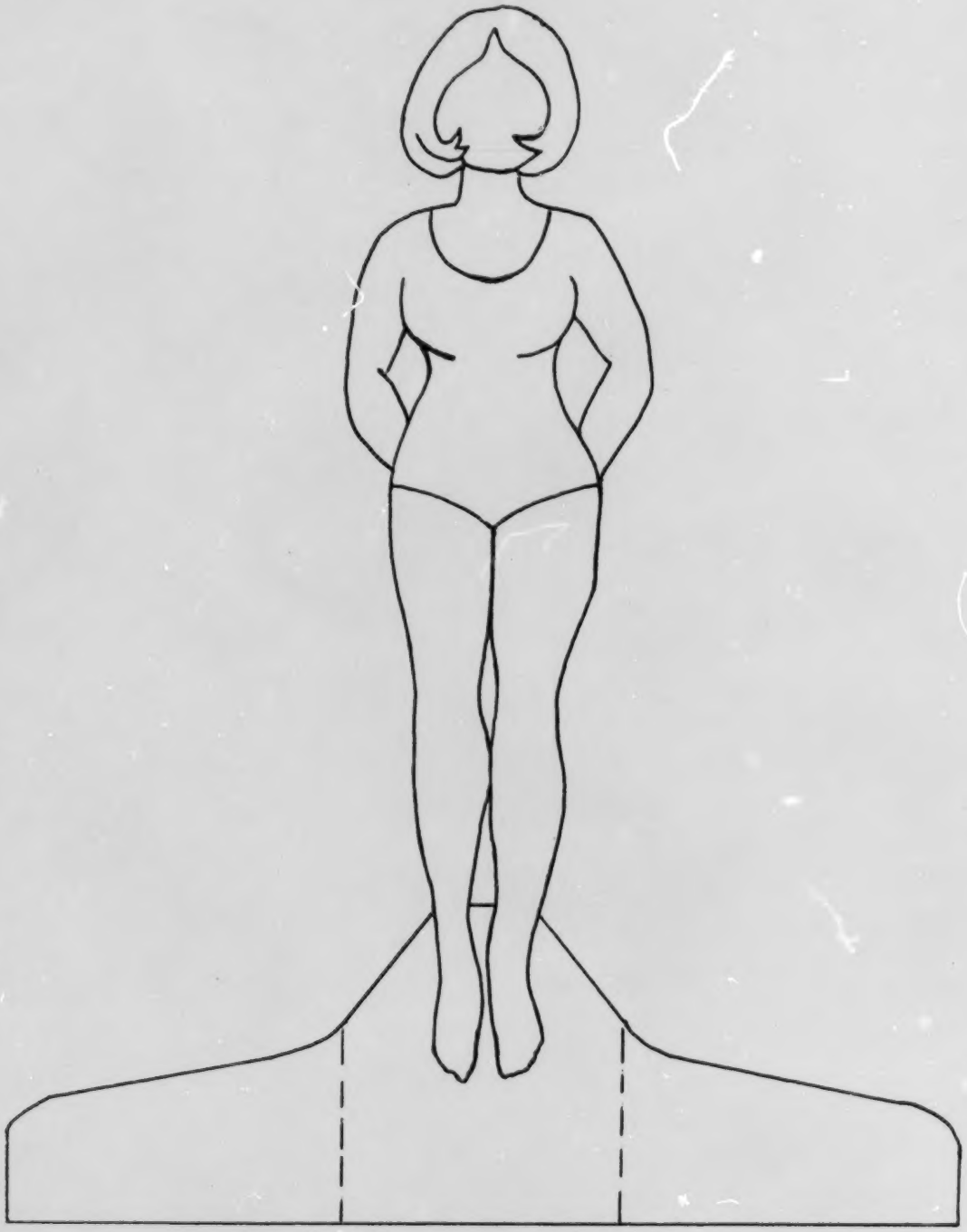


Tall Thin Figure

Adapted from PERSONAL DEVELOPMENT ORIENTATION TO THE WORLD OF WORK SERIES, The Curriculum Development Center for Kentucky

G. Owens, Curr. Dev. Cntr., U.K., 843-19

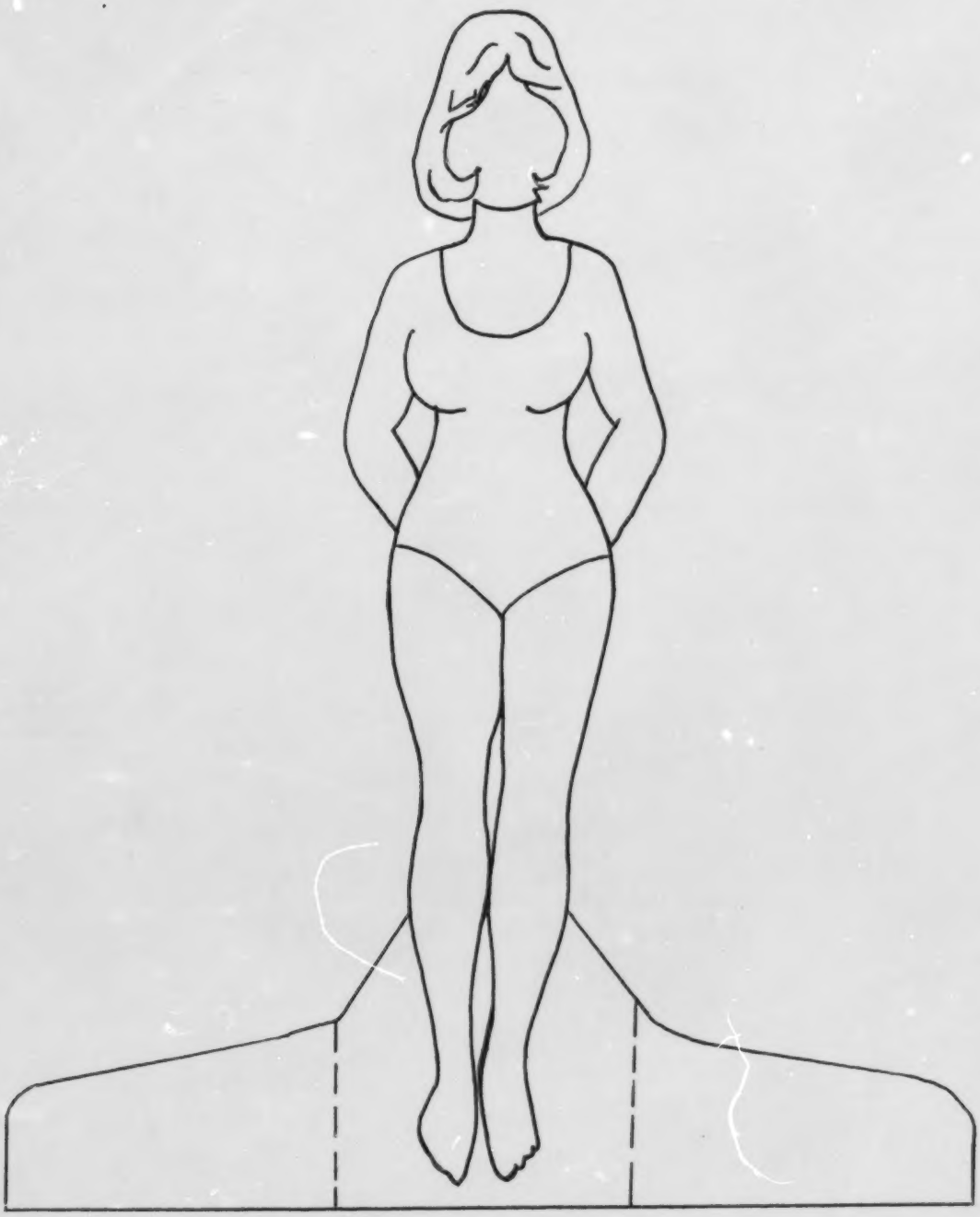
Appendix 2.2D-3



Short Full Figure

Adapted from PERSONAL DEVELOPMENT ORIENTATION TO THE WORLD OF WORK SERIES, The Curriculum Development Center for Kentucky

G. Owens, Curr. Dev. Cntr., U.K., 843-18

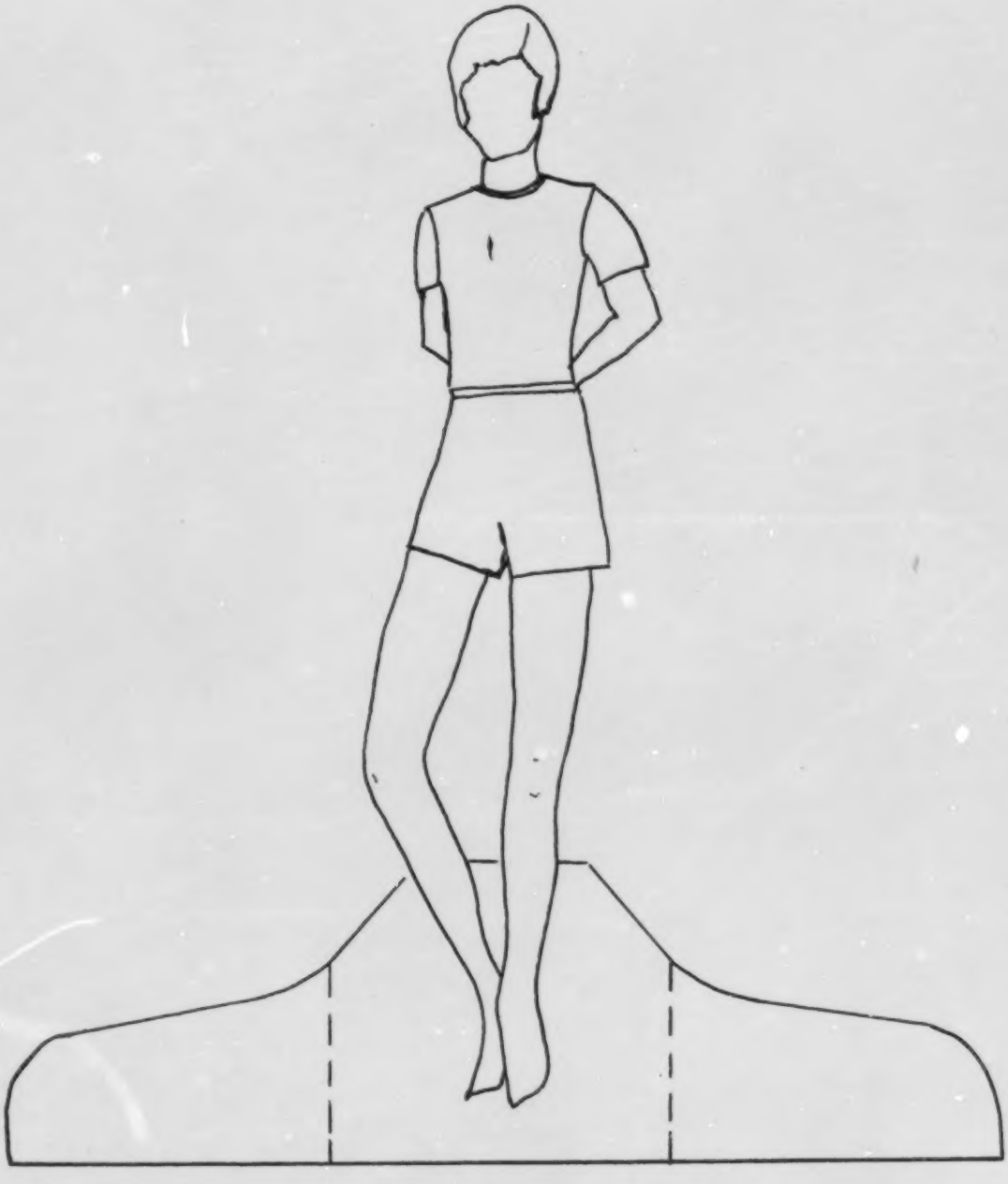


Tall Full Figure

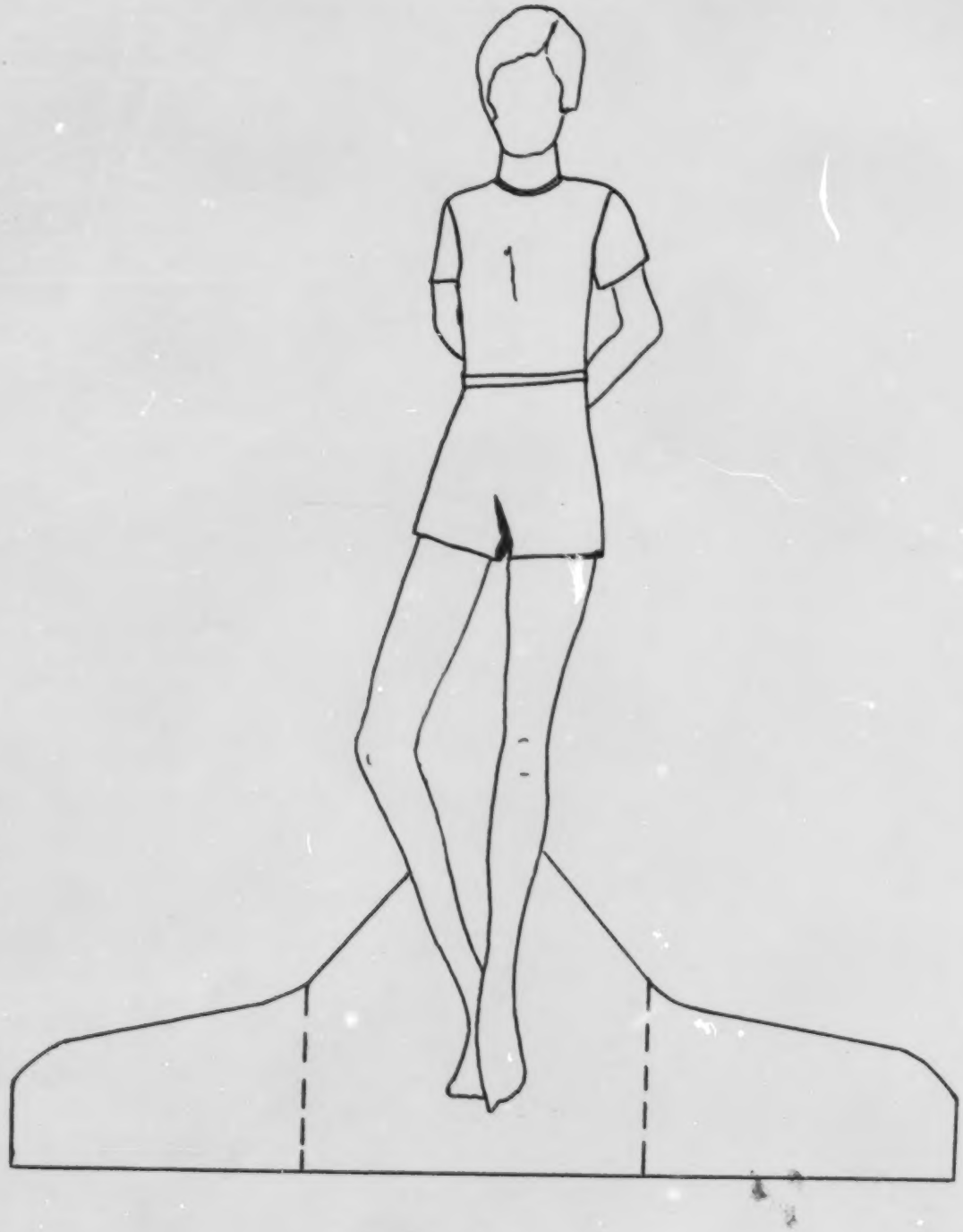
Adapted from PERSONAL DEVELOPMENT ORIENTATION TO THE WORLD OF WORK SERIES, The Curriculum Development Center for Kentucky

G. Owens, Curr. Dev. Cntr., U.K., 843-18

Appendix 2.2D-5

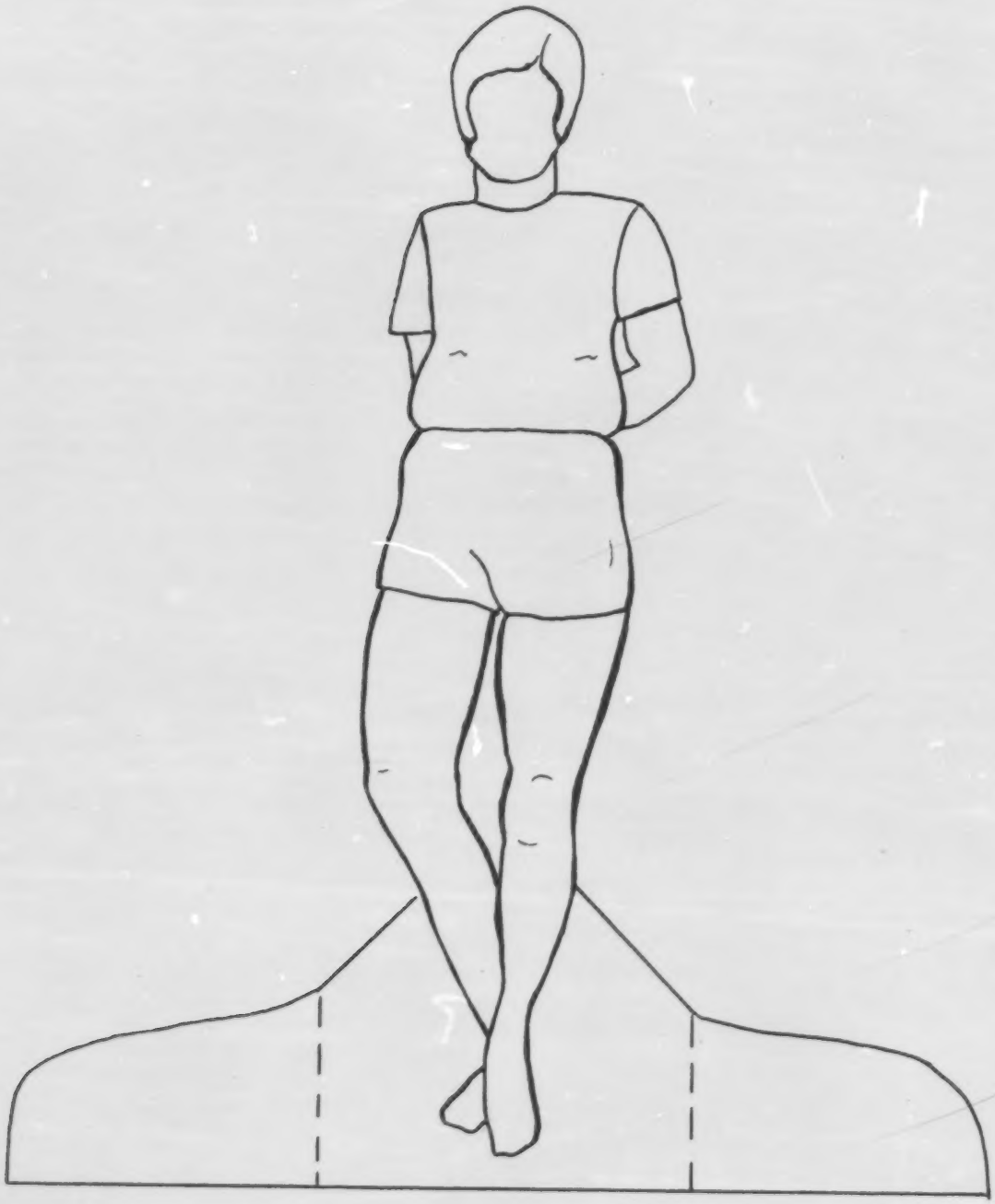


Short Thin Figure

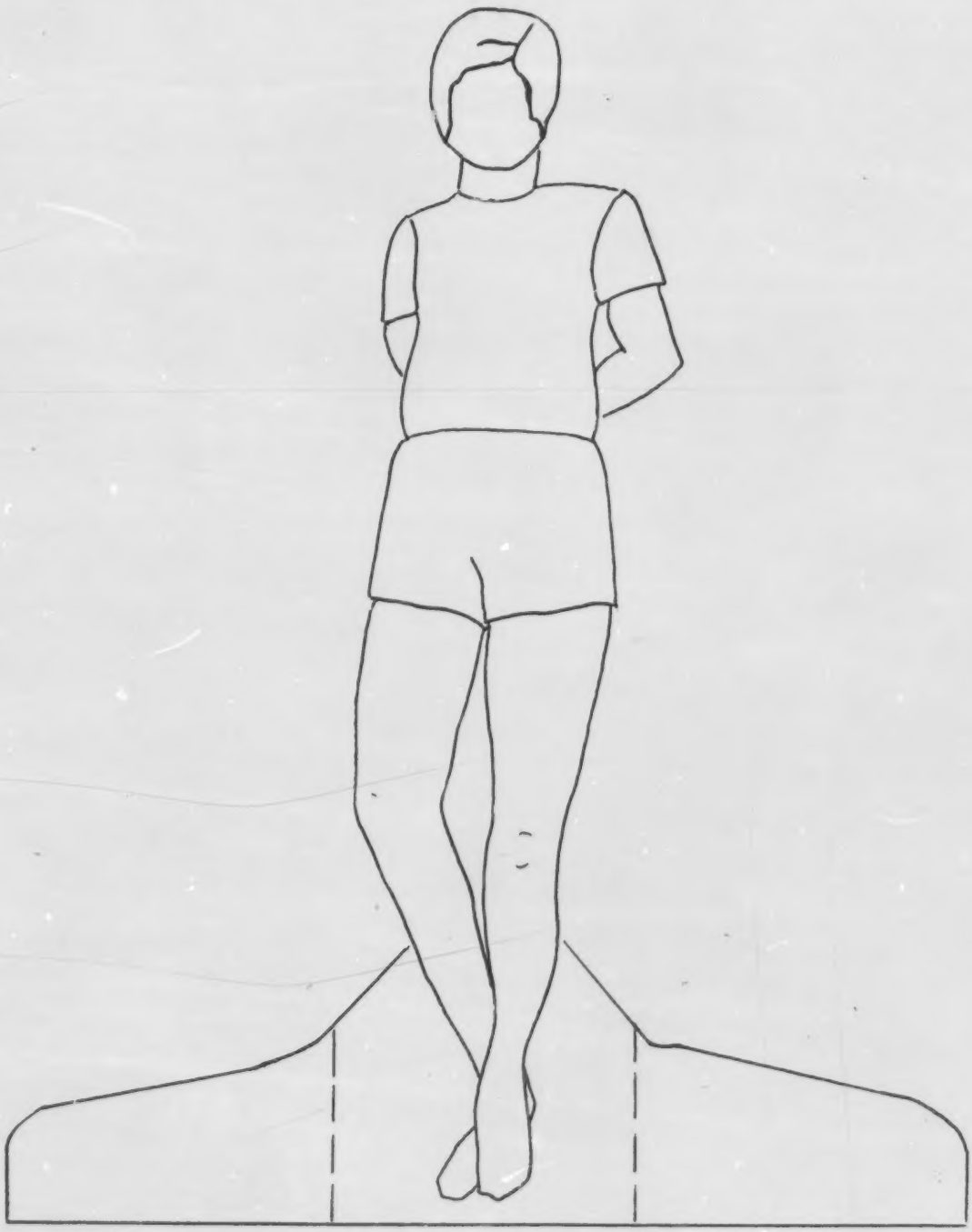


Tall Thin Figure

Appendix 2.2D-7



Short Full Figure



Tall Full Figure

Appendix 2.3

DIFFERENCES IN TEXTURES OF FABRICS

NOTE TO TEACHER: Teacher provides a number of fabrics possessing various textures. Students work in small groups with fabric samples to conduct the exercises and write a descriptive adjective for each dimension.

Dimensions	Exercise	Descriptive Adjectives
Touch		
Surface contour	Move your hands over the surface of the fabric, pull fabric between two fingers	
Surface friction	Sit on fabric, move back and forth in your chair, rub it against your cheek	
Thermal character	Wrap it around your shoulders or arm	
Compressibility	Wad it up in your hands	
Flexibility	Pleat it Fold it in a small square	
Resistance to pressure	Wave it over your head	
Weight	Drop it on your desk -- use your two hands as a balance scale	
Strength	Pull it	
Elasticity	Stretch it on lengthwise and crosswise grain on the bias	
Firmness	Try to put your fist through it	
Resiliency	Crush it, let it relax	
Sight		
Amount of reflection	Place it in bright light	
Sound		
Sound	Rub it between your hands	

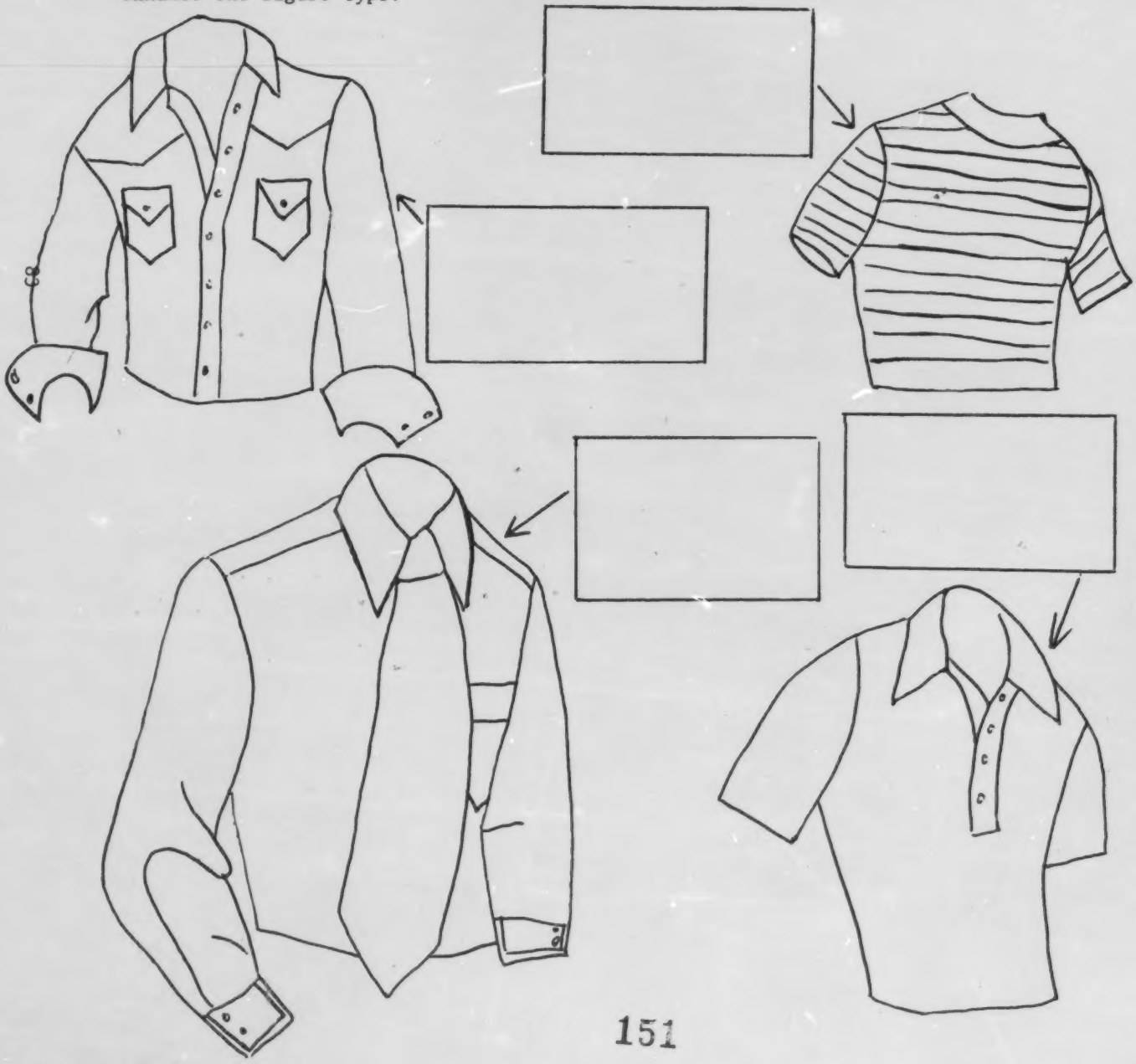
Appendix 2.4-1

PLANNING A WARDROBE UTILIZING LINE, DESIGN, AND COLOR

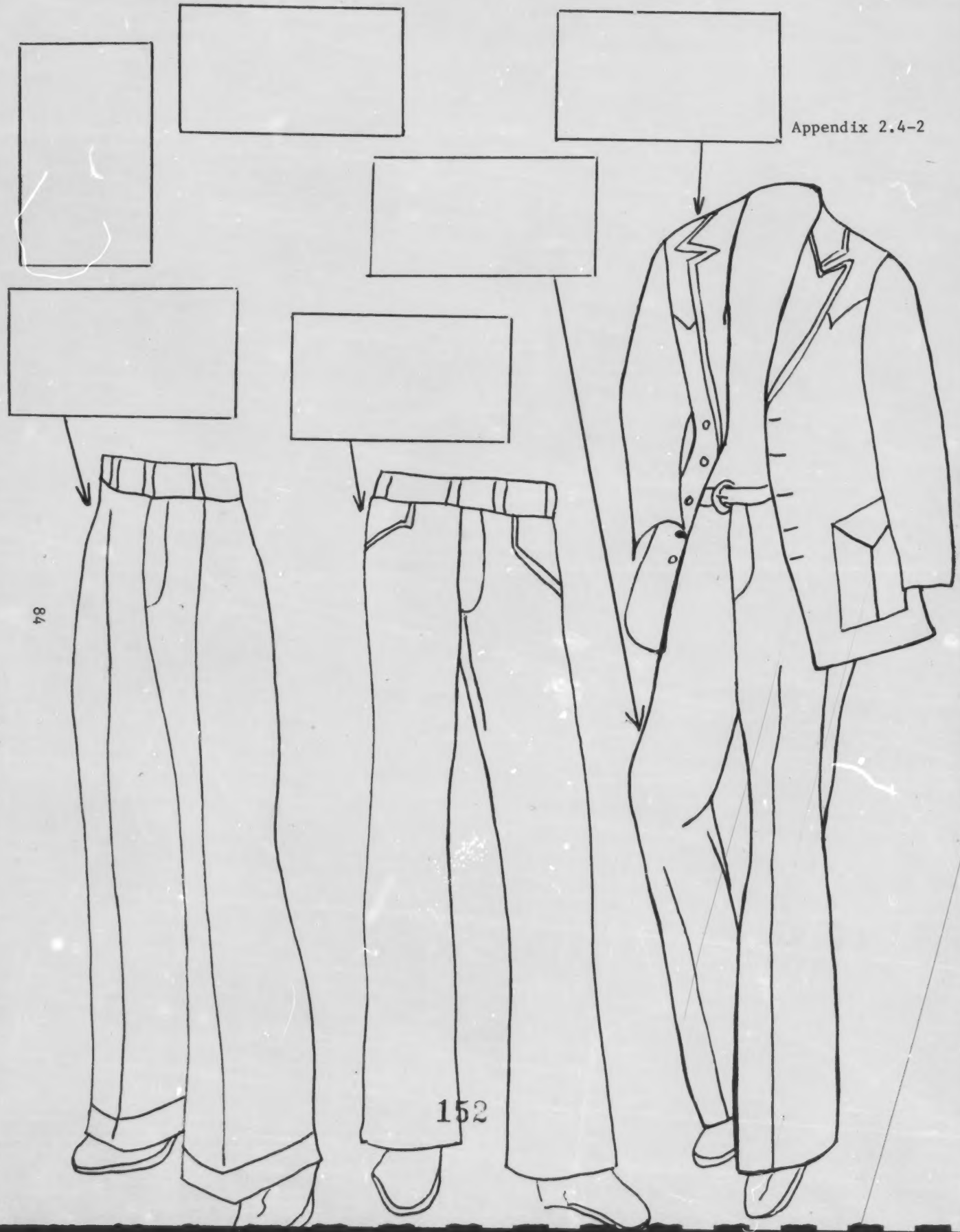
By Judy Deslatte

Instructions:

A fire has destroyed the wardrobe of a good friend. The fire insurance provided him with just enough money to purchase the items of clothing pictured on these two pages. He has asked you to make the selection. Your problem is to select fabrics, colors, and textures for these clothes so that they will coordinate. They should be interchangeable so that he will not become bored with wearing the same combinations. Attach swatches in the boxes provided to show your choice for fabric and color. Your friend has one of the four figure types listed below. Circle figure type (short thin; Short full; Tall thin and Tall full). Select colors, fabrics, and textures to enhance the figure type.



Appendix 2.4-2



Appendix 2.5-1

DETERMINING CORRECT FIGURE TYPE AND PATTERN SIZE

By Berneice Gunn

Name_____
Period_____

Overview: To select a pattern which fits correctly one must know his/her body measurements and figure type.

Competencies: The student will take and record accurate measurements of another student and him/her self.
The student will use a chart from a pattern book to select the pattern type and size that corresponds with his/her figure measurements.

Activities:

1. Choose a partner and measure each other. Take both metric and standard measurements of yourself and your partner and record in the appropriate places. Take measurements over undergarments normally worn. Stand in a normal position with your feet together. Tie a cord around your waist which will serve as a reference point for your natural waistline.

   Take and record the following measurements:
   1. Height - Stand with your back flat against a wall. Hold a ruler on top of your head parallel to the floor. Walk away holding ruler or tape measure on wall and read the measurement.

   2. Bust/Chest - Measure around the body at the fullest part of the bust/chest, high under the arm, and straight across the back.

   3. Waist - Measure around the thinnest part of the body at the natural waistline.

   4. Hip - Measure around the fullest part of hips holding tape parallel to the floor. Usually this measurement is 7" to 9" below the natural waistline.

   5. Back Waist Length - Measure from the top of the most prominent bone at the base of the neck to the natural waistline.

   6. Neckband - Measure around base of neck holding tape with ease.

   7. Shirt Sleeve - Measure from base of back neck across shoulder around bended elbow to wrist.

My Measurements	Standard	Metric	Partner's Measurements	Standard	Metric
Height			Height		
Bust/Chest			Bust/Chest		
Waist			Waist		
Back Waist Length			Back Waist Length		
Neckband			Neckband		
Shirt Sleeve			Shirt Sleeve		

2. Consult a body measurement chart in the back of a pattern book to find the pattern type and size that corresponds with your figure measurements. In determining figure type maturity of figure is important. In deciding pattern size the bust/chest and back waist length measurements are the most important when one constructs a shirt, blouse or dress; the waist and hip measurements are the most important when one constructs pants, shorts, or skirt. All your measurements should compare closely with the measurements of the selected size.

My figure type is_____ My partner's figure type is_____.

My pattern size is_____ My partner's pattern size is_____.

Appendix 2.6

SLIDE PRESENTATION FOR SELECTION OF PATTERN, FABRIC AND NOTIONS

By Pat Matthews

NOTE TO TEACHER: Below is an outline of slides which can be taken to show students how to select patterns, fabric, and notions. A tape or written script can be made to go with the slides or the teacher can make comments with each slide. The order can be changed or additional slides added to meet teacher and student needs. The slide presentation may be particularly helpful with classes in which boys are enrolled.

SUGGESTED SLIDES:

1. Title - Selecting Pattern, Fabric, and Notions
2. Outside of fabric store
3. Inside of fabric store with panorama showing total set-up
4. Fabrics suitable for construction
5. Fabrics suitable for construction
6. Fabrics not suitable for construction
7. Fabrics not suitable for construction
8. Bolt end information - cost, fiber content, care and width
9. Various pattern books and arrangement
10. People looking through pattern books
11. Person indicating pattern choice from book
12. Location of pattern drawers
13. Person taking pattern from drawer
14. Desired view of front of pattern
15. Pattern envelope back and yardage indicated for desired view
16. Bolts displaying the three basic widths of fabric
17. Salesperson measuring fabric
18. Overall view of notions
19. Zippers
20. Thread
21. Buttons, tape, lace, etc.
22. Person selecting thread to match fabric and notions
23. Person paying for materials
24. Person leaving store or wearing finished garment

Appendix 2.8A-1

CONSTRUCTION PROCESSES CHECK LIST

By Vivian Bancroft

Check those experiences in construction which you have, at same time, completed to your satisfaction.

STITCHING:	Two fabric pieces joined with:	
	straight seams	
	curved seams (identical curves) such as facing	
	corners or angles (identical corners or angles)	
	smaller seam allowance to longer seam allowance without puckers (easing diagonal edges)	
	inside curve to outside curve (concave & convex)	
	inside corner to outside corner	
	fabrics of different texture	
SHAPING:	Darts:	
	bust or waistline	
	double-pointed	
	neckline	
	cut, curved dart	
	on heavy fabric	
	with underlining	
	on interfacing	
	Gathers:	
	slight	
	very full	
	Pleats:	
	large	
	small	
	Tucks:	
	large	
	small	
	Other:	
	curved edge eased to straight edge	
	use of interfacing where needed	
	use of underlining	
	use of lining	
CLOSINGS:	Zippers: Standard	
	invisible	
	Fasteners:	
	snaps	
	hooks	
	buttons	
	Buttonholes:	
	machine	
	loop	
PLACKETS:	in seam	
	with one-piece facing	
	with binding	
	with two-piece facing	

Appendix 2.8A-2

CONSTRUCTION PROCESSES CHECK LIST

DECORATIVE DETAIL:	Top-stitching:	
	on edge	
	accurate distance from line	
	Pockets:	
	in seam	
	patch	
	slot	
	Sleeves:	
	kimono	
	raglan	
	gathered set-in	
	plain set-in	
	shirt-style	
	kimono with gusset	
	Collars:	
	curved with shaped facing	
	pointed with shaped facing	
	with no back-neck facing	
	Chinese	
	on band	
	shawl	
	on coat or jacket	
	Other:	
	straight edge finished with ribbing (knit)	
	curved edge finished with ribbing (knit)	
	straight edge finished with bias binding	
	curved edge finished with bias binding	
	embroidery or applique	
FITTING:	no fitting required	
	length adjusted:	
	width at chest or bust changed:	
	shoulder line modified:	
	waistline adjusted:	
	hips altered:	
	length of crotch changed:	
	armscye changed:	
	length of sleeve shortened or lengthened:	
	location of darts altered:	
	back waist length:	

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Appendix 2.8B-1

GARMENT PLAN

By Vivian Bancroft

Complete by filling in the blanks.

WARDROBE & NEEDS

Will this style of garment and this fabric coordinate with my wardrobe?_____

Where will I be able to wear this item of clothing?_____

_____

How often will I be able to wear this?_____

What accessories will I need?_____

THE PATTERN

Pattern Number_____; Pattern company_____; (Sketch or trace pattern on paper and attach to Garment Plan)

Is pattern suitable to my figure?_____Will this design make me look Taller?_____Shorter?_____Heavier?_____Thinner?_____Average?_____

Is the pattern available in my size and type?_____

THE FABRIC

Fiber content:_____Attach sample of fabric

Width of fabric:_____

Cost per yard of fabric:_____

Care label information:_____

Is texture of fabric suitable to my body shape or figure?_____
Too shiny?___Too crisp?___Too soft?___Too bulky?___

Is color of fabric suitable to: My body shape or figure?_____
the pattern?_____

Is design of fabric suitable to: My body shape or figure?_____
the pattern?_____

THE FABRIC (Continued)

What can be expected of the fabric?

Is it washable?_____

Does it require drycleaning?_____

Does it need to be cut with the nap?_____

Does it need to be cut as a single layer of fabric?_____

Do the seams require finishing?_____

Does the design need to be matched or centered (specify)_____

Does it require underlining?_____

Does it ease without difficulty?_____

Does it gather easily?_____

Is it color-fast?_____

What is the percentage of shrinkage?_____

Is it easy to handle?_____ Slippery?_____ Bulky?_____

Is it grainline correct?_____ If printed, is the print straight on the grain?_____

THE PATTERN AND FABRIC

Is pattern suitable for fabric?_____

Do the pattern lines destroy design of fabric?_____

Do the pattern lines emphasize texture of fabric?_____

If pattern requires buttons, are suitable buttons available?_____

Is fabric suitable for type of buttonhole needed?_____

If trimming is needed, is suitable trimming available (such as lace)?_____

ABILITIES OR COMPETENCIES

Check Construction Processes Checklist for analysis of selected pattern and fabric.

What new learnings will I experience:_____

_____

_____

What previous learnings need to be reinforced?_____

_____

Is this pattern too difficult for me?_____

ATTITUDE AND TIME

Can I complete this project in the allotted time?_____

Do I have extra time to spend on this project if I need to in order to complete on time?_____

Am I willing to meet the challenge of this project?_____

GARMENT COST

Save all bills or sales receipts and labels.

Fabric - number of yards_____@_____cost_____

Pattern_____cost_____

Thread - number of spools_____@_____cost_____

Interfacing - number of yards_____@_____cost_____

Zipper - length and type_____cost_____

Buttons - number needed_____@_____cost_____

Other notions:_____cost_____

Total Cost _____

Topical Outline

3.0 Fiber and Fabrics

- 3.1 Natural Fibers
- 3.2 Man-made Fibers
- 3.3 Fiber Blends
- 3.4 Yarn Identification
- 3.5 Fabric Construction
- 3.6 Methods of Adding Color and Design to Fabrics
- 3.7 Fabric Finishes
- 3.8 Appearance, Hand and Texture of Fabrics
- 3.9 Textile Acts

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"Fabric Keynotes."
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Educational Materials Companies

American Cotton Manufacturers Institute, 10 East 40th Street, New York, New York 10016

American Cyanimid Corporation, Fibers Division, 111 West 40th Street, New York, New York 10018

American Enka Corporation, Public Relations Section, Enka, North Carolina 28728

American Sheep Producers Council, Inc., 909 17th Street, Denver, Colorado 80202

American Textile Manufacturers Institute, Education Department, 1501 Johnson Building, Charlotte, N. C. 28281

American Viscose Corporation, Public Information, Public Relations Department, 1617 Pennsylvania Boulevard, Philadelphia, Pennsylvania 19103

Beaunit Mills, Inc., 261 Fifth Avenue, New York, New York 10016

Botany Industries, Inc., 1290 Avenue of the Americas, New York, New York 10020

Burlington Industries, Inc., 1345 Avenue of the Americas, New York, New York 10019

Celanese Fibers Company, 522 Fifth Avenue, New York, New York 10036

Chemstrand Corporation, Department TVS, 350 Fifth Avenue, New York, New York 10001

Cotton Council International, 1918 North Parkway, Box 12443, Memphis, Tennessee 38112

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Education Materials Companies (continued)

Courtaulds (Alabama) Inc., 600 Fifth Avenue, New York, New York 10020

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Eastman Chemical Products, Inc., 260 Madison Avenue, New York, New York 10016

E. I. DuPont De Nemours and Company, Inc., Textile Fibers Department, Product Information, Centre Road Building, Wilmington, Delaware 19800

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ITT Educational Services, Inc., 55 West 42nd Street, New York, New York 10036

J. C. Penney Company (Laboratory), 330 West 34th Street, New York, New York 10036

Linen Guild Inc., 345 Fifth Avenue, New York, New York 10016

Man-made Fiber Producers Association, Educational Department, 70th Street, N.W., Washington, D. C. 20036

The National Cotton Council of America, 350 Fifth Avenue, New York, New York 10016

Owens-Corning Fiberglas Corporation, 717 Fifth Avenue, New York, New York 10022

Pendleton Woolen Mills, Home Economics Department, 218 S.W. Jefferson Street, Portland, Oregon 97201

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Pittsburgh Plate Glass Co., Public Relations Department, 632 Fort Duquesne Boulevard, Pittsburgh, Pa. 15222

Proctor and Gamble Company, Educational Services, Box 599, Cincinnati, Ohio 45201

Reeves Brothers, Inc., 1071 Avenue of the Americas, New York, New York 10018

Union Carbide Chemicals Company, Textile Fibers Department, 270 Park Avenue, New York, New York 10017

United States Rubber Company, Public Relations Department, 1230 Avenue of the Americas, New York, New York 10020

Wool Education Center, 200 Clayton Street, Department WE-272, Denver, Colorado 80206

3.0 FIBER AND FABRIC

3.1 Natural Fibers

GOAL STATEMENT: The student will understand information relating to fibers, fabrics, design and color application, finishes and textile legislation in the selection of textile products.

COMPETENCIES	LEVEL II ACTIVITIES
NOTE TO TEACHER: Fiber and fabric will be presented at one level only. This material is only appropriate for mature students of at least high school level. It logically goes with Level II in 5.0, Construction Processes. Experience of many teachers has taught that too early an introduction in textiles tends to discourage rather than enhance student learning. It is a most appropriate prerequisite for students who plan to enter the clothing and textiles occupational field.	
3.1 Identifies characteristics of natural fibers and explains their use in fabrics. (BEGINNING COMPETENCY)	3.1 NOTE TO TEACHER: See Fashion and Fitting, 2.10, Level I Activities, if not taught previously. Teacher selects references which are applicable for students to read. Teacher shows selected fabric samples of plant and animal fibers and leads a discussion of their properties. Students examine fabrics for variations and orally express the differences. Samples should include cotton and linen plant fibers and wool and silk animal fibers. Teacher may include other natural fibers. (See Appendix 3.1A for fiber characteristics and uses.) Teacher may use the opaque projector to demonstrate the physical properties of the various fibers by projecting pieces of fabric. Students view films or filmstrips on natural fibers. (See bibliography.) Teacher displays items, with fibers labeled, made from various natural textile products. Students write explanation why the particular textile was used for the product and why another fiber might not be substituted.

COMPETENCIES	LEVEL II ACTIVITIES
	3.1 (continued) Students conduct or the teacher demonstrates, laboratory experiments on natural fibers. Students can serve as assistants. (See Appendix 3.1B.) *Students cut out five advertisements from magazines and/or newspapers for natural textile products and mount on paper. The product and fiber content is given for each item. A chart is made for each of the fibers, showing how and where the textile product is used. Individualized learning experiences might include students collecting samples of natural fibers and mounting them on a display board. OR Students may grow silkworms (pictures and description of how to grow silkworms in "How You Look and Dress").
LEVEL II 3.2 Identifies the characteristics of man-made fibers and explains their use in fabrics. (BEGINNING COMPETENCY)	3.2 The class views film "The Way It Is with Man-made Fibers" or "Facts about Fabrics" (source in bibliography). Students examine teacher selected man-made fabrics, and teacher leads a discussion on the various fiber properties. Fibers to be included are: acetate, acrylic, modacrylic, nylon, polyester, rayon, spandex, and triacetate. (See Appendix 3.2A for fiber characteristics and major uses.)

COMPETENCIES	LEVEL II ACTIVITIES
	3.2 (continued) Teacher explains and illustrates the differences between the generic name and the trade name of a particular fiber. (See Appendix 3.2B.) Students conduct or the teacher demonstrates laboratory experiments on man-made fibers using the same experiments used for natural fibers. (See Appendix 3.1B.) Students cut out five advertisements from magazines and/or newspapers for man-made textile products and mount on paper. Identify the generic name and trace name and explain why the fiber was used for the product. *Students role play the game "I Am A Salesman" to evaluate if they can explain advantages and disadvantages of a particular fiber or fabric. Teacher pins the generic names of natural and man-made fibers to textile products and places them in a box. Each student draws one and role plays that she/he is a salesman in a fabric store attempting to sell the products by reviewing the positive characteristics. Another student role plays a reluctant customer by relating the undesirable characteristics.
LEVEL II 3.3 Identifies the advantages and disadvantages of fiber blends in fabrics and their performances. (BEGINNING COMPETENCY)	3.3 Teacher presents information using a display of fabrics or students report reading on the various aspects of production of blends including manufacturing procedures and dyeing. Cost and durability are also included.

COMPETENCIES	LEVEL II ACTIVITIES
	3.3 (continued) Students do an informal survey of what individuals think of blended fabrics. Disadvantages of clothing made from blends are summarized from the survey results. Students divide into groups and search through magazines, newspapers and catalogs to locate textile products created with different blends.
LEVEL II 3.4 Identifies and explains various yarns and construction processes. (BEGINNING COMPETENCY)	3.4 Teacher leads discussion on the formation of yarns using a display of various types of yarn. Some to include are: Monofilament (e.g., fishing line) Double filament Single ply Double ply Students view films or filmstrips on yarn construction (see bibliography). Students use polyester fiber fill and twist the staple fibers until they become yarn. Students demonstrate a mixture of fibers by twisting polyester staple fibers together with cotton staple fibers to form yarn. If possible, students view a person weaving (e.g., Navajo woman or Pioneer, Arizona demonstration).

3.4 Yarn Identification (continued)
3.5 Fabric Construction

COMPETENCIES	LEVEL II ACTIVITIES
	3.4 (continued) Students examine assigned fabrics through a microscope, a pick glass or a magnifying glass, or pull yarn from samples to determine if the yarn is monofilament, double filament, single ply, or double ply. The student places information on a chart provided by the teacher.
3.5 Explains graphically or in writing how yarns are converted into woven, knit or felt fabrics and identifies the performance expected of fabrics by each method of construction. (BEGINNING COMPETENCY)	3.5 With the use of the opaque projector, chalkboard or flannelboard, the teacher demonstrates various weaves - plain, twill, satin, novelty, and pile. With the use of the opaque projector or other visual aids the teacher explains the following characteristics of woven fabrics - selvage, bias, grain. Students consult teacher-selected references to determine the different types of construction and the characteristics of woven, knit, and felt fabrics. Students explain graphically, verbally, or in writing how yarns are converted into fabric. The class summarizes in a discussion the characteristics of the fabrics manufactured by various methods of fabric construction and the performance expected. Students examine various teacher-selected samples through a microscope, a pick glass or a magnifying glass to determine the method by which the yarns have been converted into cloth. Woven fabric should include plain, twill, satin, pile,

COMPETENCIES	LEVEL II ACTIVITIES
	3.5 (continued) and novelty. Knit and felt fabrics should also be included. Students record what they see on a teacher-constructed worksheet. Students use various pieces of woven, knit or felt fabrics to determine what happens to the fabrics: - rub the fabric against itself and observe what occurs - place weights in bags constructed of various fabrics and determine changes in fabrics - iron crease in fabric; does it hold immediately, after five minutes, after 10 minutes? Students draw conclusions as to appropriate fabrics for various articles of clothing. Individual Learning Project - Teacher or students construct hand looms and students weave wall hangings, place mats or small rugs.
LEVEL II 3.6 Differentiates and describes the various methods of color and design application to fabrics. (BEGINNING COMPETENCY) (DECISION MAKING)	3.6 Teacher presents an illustrated talk or students report from reading on methods of dyeing and printing fabrics. Students examine fabric samples which exemplify the following methods of color and design application to fabrics: Dyeing - Solution Stock or fiber Yarn Piece Cross

COMPETENCIES	LEVEL II ACTIVITIES
	3.6 (continued) Printing - Screen Roller Hand Painted - Various kinds of applications Students examine several printed fabrics on both sides determining extent of dye absorption. Students pull yarns from swatches and examine the yarns through a microscope, pick glass, or magnifying glass to determine method of dyeing. *Students construct a bulletin board of various fabrics on which they label printing and dyeing method used. Students participate in one or more of the following hands-on experiences: Tie dyeing Printing - potato or block Stenciling Dyeing Blends - combining cotton and polyester yarns and dyeing to determine the color variations. Individual Project - A student reports on the natural plant and vegetable dyes used in handmade woven items. A student might collect various plants and prepare natural dyes. Possible resources are the museum at the University of Arizona campus, Navajo women, Heard Museum in Phoenix, Museum of Northern Arizona, and local museums (Bisbee Museum). An alternative might include local arts and crafts shops.

3.7 Fabric Finishes

COMPETENCIES	LEVEL II ACTIVITIES
LEVEL II 3.7 Analyzes the finishing processes and treatments which fabrics may undergo and the effects the finishes have on woven, knitted, dyed, or printed fabrics by completion of experiments. (DECISION MAKING)	3.7 Students use a worksheet to compare fabrics which are classified as crease resistant, flame retardant, water repellent, and permanent press. (See Appendix 3.7A) Students relate problems they have encountered with articles treated by any of the above finishes. Students complete "Word Search for Textile Terms" (See Appendix 3.7B). Individual Learning Experiences - A student, or several students, may find additional information on any of the finishing processes and compare the cost of, durability, and the time spent on upkeep for treated and untreated garments. Students find information and write a report or prepare a visual explanation on one of the following processes: bleaching — napping sizing — static electricity pre-shrinking — mercerization Students conduct simple laboratory tests and complete teacher devised worksheets on fabrics to determine: - colorfastness to bleaches, sunlight, rubbing or crocking, and laundering. - resistance to shrinkage (See Appendix 3.7A)

COMPETENCIES	LEVEL II ACTIVITIES
LEVEL II 3.8 Identifies and explains differences in appearance, hand and texture of fabrics. (BEGINNING COMPETENCY)	3.8 NOTE TO TEACHER: Fabrics used in 3.8 could include: velvet, hopsacking, burlap, satin, polyester double knit, polyester single knit, cheesecloth, nylon tricot, cotton gingham, cotton denim, and chiffon. Students examine garments constructed in same manner but possessing differences in appearance, hand and texture. (e.g., two men's shirts - one permanent press and one wool.) A guest speaker may bring fashions or fabrics and discuss the appearance, hand and texture of each item, and how textiles are used to create different effects. Teacher should have lengths of fabric with differences in hand, appearance and texture. Students work in small groups to find how each fabric reacts to the following: drape over head drape over torso crumple in hand and drop to floor run and hold fabric behind so it floats in the air pleat fabric Students brainstorm to describe teacher selected fabrics with adjectives. Students could work in pairs: one student closes his eyes and his partner would hand him a fabric swatch to describe. Students write descriptions of fabrics on worksheet.

COMPETENCIES	LEVEL II ACTIVITIES
LEVEL II 3.9 Illustrates the importance of the Textile Acts in relation to the selection and care of textile products as evidenced by completion of a hang tag and care label for a garment. (ECONOMIC AWARENESS) (DECISION MAKING)	3.9 After students gain information, the teacher leads class discussion on textile terminology and labeling laws. The discussion will include the legislative acts: Textile Fiber Products Identification Act Wool Products Labeling Act Flammable Fabrics Act Care Labeling of Textile Wearing Apparel OR Teacher invites a knowledgeable speaker to discuss legislative acts (e.g., specialist from Consumer Fraud Division of Attorney General's Office or Cotton or Wool Growers representatives). Teacher prepares bulletin board: "Tags and Textiles." Students visit a fabric store or clothing store and collect information from hang tags and care labels to illustrate such information as colorfastness, washability, dry cleanability, shrinkage, fiber content, and flammability treatment. *Students complete a hang tag and care label for teacher selected textile garments or products.

APPENDIX 3.1A

Natural Fiber Characteristics and Major Uses

Characteristics	Major Uses
COTTON	
- is strong and durable - has high moisture absorbency - is versatile - gains strength when wet - is not damaged by alkaline solutions - lacks flexibility and resiliency - is susceptible to mildew and bacteria growth and silverfish insect damage - is receptive to various finishes - is flammable - blends well with other fibers	- coats, suits, jackets, slacks, shirts, sweaters, caps, socks, skirts, undergarments, sleepwear, diapers, shirts, gowns, blankets for infants, sheets, towels, draperies, upholstery and carpeting
WOOL	
- is resilient, durable and elastic - does not retain wrinkles - is effective insulator - is naturally lustrous and reflects light - tends to repel water - becomes wet upon long exposure and absorbs much moisture - weakens when wet and distortion or stretching may occur - does not burn readily - does not deteriorate with age - resists bacteria and mildew damage if kept dry - is destroyed by moth larvae if not properly stored - shrinks under conditions of heat, moisture and agitation - blends well with other fibers - felts in presence of heat	- coats, suits, shirts, pantsuits, caps, scarves, sweaters, socks, carpeting, blankets and upholstery fabrics
LINEN	
- is stronger than cotton - is durable - is not damaged by alkaline solutions or dry cleaning solvents - has high moisture absorbency - is resistant to sunlight - has low resiliency and wrinkles easily - is non-elastic and tends to be brittle - resists damage by moths and other insects - is susceptible to mildew damage - is flammable	- suits, coats, handerkerchiefs, collars, draperies, upholstery, and decorative wall hangings

Characteristics	Major Uses
SILK	
- is strongest natural fiber - is more resilient than cotton and flax - absorbs moisture readily - takes dye easily - wrinkles and stretches easily when worn - deteriorates from exposure to sunlight - loses strength by aging - burns readily - is destroyed by strong acids - is not affected by dry cleaning solvents - does not support mildew or bacterial growth	- dresses, blouses, gloves, scarves, hats, ties, draperies, upholstery and wall hangings

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APPENDIX 3.1B

Laboratory Experiment Procedures for Natural and Man-made Fibers and Fabrics

EXTREME CAUTION SHOULD BE TAKEN WHEN CONDUCTING EXPERIMENTS

Flame or Burning Test

Purpose: To determine properties of and to identify a fiber.

Procedure: Unravel one yarn until fibers are parted and can ignite separately. Hold fiber with tweezers and use lighted candle to ignite fiber. Hold fiber in flame only until ignited. Then observe behavior of fiber. Fibers which burn readily but extinguish themselves fall into the natural fiber group. Those which smell like burning hair are classified as protein and those which leave an ash are classified as cellulose. Fibers which melt when exposed to a flame are man-made. Record results on a teacher constructed report sheet.

Chlorine Test

Purpose: To determine if fiber is damaged by the use of chlorine in laundering or other cleaning processes.

Procedure: Unravel a yarn from a one-inch square of fabric and place in one ounce of chlorine. (Pure chlorine is used to speed up reaction.) Let stand for two minutes and remove. Record reaction, if any. With a clean eye dropper, place given drops of chlorine on the one-inch fabric square. Observe changes in color and composition of fabrics. Record results.

Acetone Test

Purpose: To determine if fiber is harmed by acetone (the acetate group is the only group which will dissolve in acetone).

Procedure: Cut a one-inch square of fabric and place five drops of acetone or fingernail polish remover on the fabric using a clean eye dropper. Observe the reaction and record results.

Wrinkle-Resistance Test

Purpose: To determine if fabric is resistant to wrinkles.

Procedure: Wrinkle a six-inch square of fabric in one hand for one minute, then release and allow to stand for one minute. Note wrinkles and creases remaining in fabric as "many," "few," or "none" on report sheet.

Iron Temperature Test

Purpose: To determine the temperature resistance of the fabric.

Procedure: The material is tested with a dry iron to see at what temperature the material does not scorch, disintegrate or wrinkle, and the temperature at which it looks well-pressed or ironed. Record results.

Soil Removal Test

Purpose: To determine the method by which soil is removed from a fabric with the least wear and shrinkage.

Procedure: Hand laundry - The soiled fabric squares are washed with a mild soap or detergent, rinsed well, and dried.

Machine laundry - The soiled fabric squares are laundered in a machine or a machine can be simulated by using a coffee can and small pebbles. An ordinary laundry detergent is used.

Dry cleaning - The soiled fabric squares are placed in a mesh bag and processed in a coin-operated dry cleaning machine. This could be an individual student project.

Samples from the three cleaning processes are compared with a control sample in terms of shrinkage and appearance. Results are evaluated and recorded on the report sheet.

APPENDIX 3.2A

Man-made Fiber Characteristics and Major Uses

Characteristics	Major Uses
ACETATE	
- is able to take beautiful color - is shrink resistant - is moderately absorbent - is economical - retains "crispness" - is made in various lusters - drapes easily - has luxurious feel and appearance - is heat sensitive - loses strength when wet - is subject to electrical static buildup - has resistance to moths and mildew - is weakened by long exposure to light - is able to be constructed into the following fabrics--satin, jersey, taffeta, lace, faille, brocade, tricot, and crepe	- dresses, blouses, lingerie, draperies and upholstery, and lining fabrics
ACRYLIC	
- is soft - is warm and lightweight - is shape retentive - is resilient and durable - is quick drying - sometimes has light and fluffy construction - is fade resistant - is not affected by insects, bacteria or fungi - has low moisture absorption - has ability to hold creases and pleats - is wrinkle resistant - collects static electricity - has tendency to pill in some yarn construction - is heat sensitive - is sometimes made in fleece and pile fabrics	- sweaters, skirts, dresses and suits, socks, sports and work clothes, blankets, carpeting, draperies, and upholstery
MODACRYLIC	
- is soft - is resilient - is flame resistant - is quick drying - is extremely heat sensitive - is little affected by moisture - has tendency to accumulate static electricity - has resistance to acids and strong alkalies - is sometimes made into fleece-like fabrics	- deep pile coats, trims, linings, carpets, scatter rugs, and stuffed toys

Characteristics	Major Uses

NYLON

- is exceptionally strong, durable and relatively light in weight - is elastic and resilient - is abrasion resistant - is heat sensitive - is able to be dyed in wide range of colors - is smooth and lustrous - is low in moisture absorbency - is easy to wash - adapts to many uses - has tendency to absorb color, grease and soil - collects static electricity - has ability to dry quickly - has tendency to yellow at high temperatures - has ability to be washed without shrinking - heat sets into permanent pleats - is not damaged by mildew, bacteria and insects - is not damaged by alkali solutions nor weak acids - is damaged by exposure to strong sunlight - is made into stretch fabrics - is made into wide variety of yarns	- dresses, suits, hosiery, lingerie, threads, carpeting and upholstery

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POLYESTER

- is strong and durable - is resistant to stretching and shrinking - is easy to dye - is resistant to most chemicals - is crisp and resilient - is wrinkle resistant - is abrasion resistant - is able to retain heat-set pleats and creases - is quick drying - is easily washed - is heat sensitive - has affinity for oil-borne stains and soil - has ability to blend well with other fibers - collects static electricity - has low moisture absorbency - does not support combustion but does melt in presence of fire - is frequently made into permanent press merchandise	- slacks, shirts, dresses, blouses, sportswear, children's play clothes, curtains, draperies, carpeting, thread, filling for pillows, comforters, and furniture

Characteristics	Major Uses
RAYON	
- is highly absorbent - is durable - is soft and comfortable - is versatile and economical to produce - has affinity for dyes - drapes well - is susceptible to mildew - loses strength when wet - has low resistance to wrinkling - blends well with man-made and natural fibers - has tendency to shrink - is weakened by exposure to light - is damaged by mildew, acid solutions, strong alkali solutions and high ironing temperatures - will burn readily	- dresses, suits, blouses, coats, slacks, lingerie, lining fabrics, curtains, draperies, slipcovers, upholstery fabrics, and nonwoven fabrics for disposable products (e.g., disposable diapers)
SPANDEX	
- is light in weight - is resistant to body oils, perspiration and most chemicals - is strong, durable and abrasion resistant - is supple - has great elasticity and recovery power - is weakened with use of chlorine bleach - does not lose strength with aging - is damaged by heat	- foundation garments, swimwear, support and surgical hose, and ski pants
TRIACETATE	
- is shrink resistant - is wrinkle resistant - has resistance to fading - is easily washed and dries quickly - has good pleat retention and maintains crisp finish - is weakened by abrasion - is adversely affected by acetone - loses strength when wet - is not attacked by moths and mildew - is subject to electrical static buildup unless given antistatic finish - is made into sharkskin, flannel, taffeta, and tricot	- sportswear, and garments where pleat retention is important

APPENDIX 3.2B

EXAMPLE OF GENERIC NAMES AND FIBER TRADEMARKS

GENERIC NAME	FIBER TRADEMARK NAMES FOR MANUFACTURED FABRIC
Acetate	Avisco, Celaperm, Chromspun, and Estron
Acrylic	Acrilan, Creslan, Orlon, and Zefkrome
Modacrylic	Dynel and Verel
Nylon	Antron, Cantrece, Caprolan, Cumuloft, Qiana, and Vectra
Polyester	Dacron, Encron, Fortrel, Kodel, Mylar, Quintess, Trevira, and Vectra
Rayon	Avisco, Avril, Bemberg, Coloray, Cupioni, and Zantrel
Spandex	Lycra, Numa, and Vyrene
Triacetate	Arnel

APPENDIX 3.7A

COMPARING FABRIC FINISHES AND TREATMENTS

Directions: The following are simple tests which may be used in either the home or the non-equipped laboratory. Use 4 swatches (12 in. x 12 in.) of fabric, two with finishes and two without. Wash two of the swatches twice (one with a finish and one without). Now conduct the following experiments.

1. Crease Resistant Finish

   Purpose: To determine importance of crease resistant finish.

   Procedure: Fold four swatches into equal parts and place under pressure for 1, 5, and 20 minute(s), release and unfold. Record observation on worksheet.

2. Flame Retardant Finish

   Purpose: To determine the effectiveness of a flame retardant finish.

   Procedure: Students view a teacher demonstration on the application of a flame resistant finish to a piece of fabric. (A manufactured product or a solution of one quart water, three ounces borax, and 1-1/2 ounces boric acid can be used.) Apply finish to fabric, allow to dry and compare flammability of treated and untreated fabrics. Hold a flame at the edge of each fabric and note the burning behavior of each. Record observations on the worksheet.

3. Water Repellent Finish

   Purpose: To determine the effectiveness of water repellant finish.

   Procedure: Sprinkle drops of water on fabric and wait for several minutes to determine if the water is absorbed. With water repellent fabrics it will not be absorbed; the water will remain on the surface. Record observations on the worksheet.

4. Permanent Press

   Purpose: To determine the effectiveness of permanent press finish.

   Procedure: Remove fabrics from the dryer, observe wrinkles and record observations. Press fabric swatches with dry iron and then with steam iron and record observations.

The following experiments were developed by Dr. Marjorie Joseph, California State College, Northridge.*

5. Colorfastness

Colorfastness is observed in relation to several environmental factors. Color change can occur due to exposure to sunlight, bleaches, water, and stain removal agents. Some factors which might affect color are perspiration, rubbing against other surfaces and ironing temperatures.

Purpose: To determine the colorfastness of fabrics.

Procedure: Test for colorfastness to bleaches: Cut two additional samples of the fabric (about 2 in. x 3 in.) being tested and place them on a white paper towel. Allow two drops of bleach to penetrate each sample. Allow the bleach to stand for two or three minutes, then rinse one sample thoroughly and label to indicate that it has been rinsed. Permit both samples to be observed to discover if any additional change has occurred. This test may be done with a variety of bleaches to determine which bleaches are safe for the various fabrics.

Procedure: Test for colorfastness to sunlight: Cut additional samples of the fabric being tested (about 2 in. x 3 in.) and allow them to stay in direct sunlight for a minimum of twenty hours. Only the hours between 10:00 a.m. and 2:00 p.m. should be counted. A forty-hour test is even better. After sufficient time in the sunlight, compare the test sample with an original piece of the fabric and make observations concerning the colorfastness of the fabric to sunlight.

Procedure: Colorfastness to rubbing or crocking: Cut another sample of the fabric to be tested and place on a smooth surface. Cut a piece of white cotton percale which has been washed and dried and ironed and wrap this cotton around the index finger. Rub the white fabric over the sample being tested at least ten times. Observe if any color rubs off onto the white fabric. Repeat the test using a piece of wet white fabric. Crocking usually occurs when there is too much dye in the fabric.

Procedure: Colorfastness to laundering: Cut another piece of fabric about 3 inches x 5 inches. Place one cup of water heated to 160° F. into a pint jar. Add one teaspoon of detergent and then add the sample being tested. Shake the contents of the jar frequently for ten minutes. Observe the color of the detergent solution. Has the color "bled" into the water? If so, what would this signify concerning care problems of the fabric?

*Permission Granted

After the wash period, remove the sample and rinse at least twice in water at about 105° F. Observe the color of the rinse water following each rinsing. Following the rinsing, permit the sample to dry and then compare with an original piece of the fabric.

6. Shrinkage

Purpose: To determine shrinkage of fabrics.

Procedure: A simple way to evaluate shrinkage of a fabric is to cut two samples identical in size - 12 inches x 12 inches. Wash one of the samples, dry, smooth out by hand, and then compare the size of the washed sample with that of the original. If it is thought that dryers might cause additional shrinkage, start with three samples. Wash two, air dry one of the two washed samples and dryer dry the second washed sample. Compare the results with the original. To prevent fabric fraying, cut edges may be edge stitched, overcast or zigzagged.

APPENDIX 3.7B

Word Search For Textile Titles

Nora Bellmann

P A C T Z N W F G H N I B C S A T F F I L A M E N T T E A T G H
L A C K E O N A B R I T E S E A T B C D I G H K M Z P T L E F T
A C C B K N B C A T A B C O L A T M I N E I S P E P O S Y E L F
I E J B B E E Y A B K D F G I M T I M S E S E E R K J E F E Y E
N Z D L S J O Z V Y M A N X O W J O N N P I E Z Z Y T L I V U A
W M W S H C N F E F T C D L B S C A H W Z R T B S R I V P Q R R
E B T T N A H O T E X T I L E S T H O T E H I Y Q D A A M N O S
A T B B M S I O B D B I A L C B I K L M R A M T N O O G A H R G
V E S B E R S E O G G H B I J D U O A M P P V N E T M E S P L R
E N B H H S Y M N L O P D R E S S L E G A T I E T A T B Y A T A
B C L H S T J E B O A T C I R B A F T B O M E O N C O I I A R I
F H A F I B E R N R A I O C H K L M B O G O P N D I A V I V I
H F V B E V A Y B O I Z L E R I A M K L S U N I I N J I E A N T
K Z P M V Y C T C E R L I F G I R B A I T L E F T L M T L I A N
I T P S W E E W C L O C B Y D R G C W E A V E M I S N B F G R I
N O B H G R F I T C O G C O C A I G S R P A N H N N A I N I S E
D D M M T S D L M V H Y A Y F A C I N G L U T O H I C O A R S E
T K S N X U B L Y T E J X Z N O O L M P E K T T A E Y F I R L E
P K T M F N O Z O X W X Y W V N S T U V D T U H Y L Y T F G W
J G M W X W A L E Y A W C S I E E V E K O E C S C I S S O R S I
C J B S T Y C A C R J V R O X Y J C Y C X H C D I F C D V E E X
Y B S T A Y B N O S E U O S U Z A I J A W N R S I L K N I N T T
J R D A R E D L K E F R I U T R N O E N M F O R I U O E R E E T
H S T R W C O L T Y K R A B H L S F S I R F R S E W O D G E M B
B M E Z Z M U M S R G I J O C L N E L B U E G R N A E F E T I
I T A B C F L A M E R E T A R D A N T O R A H I L B O V J A O A
E B T D E Y D N Y E O F I Y A R N D Y E D A C T B E F H Z Z M S

WEAVE
FILAMENT
TEXTILES
TWILL
PLAIN WEAVE
SATIN WEAVE
YARN DYED
TERRYCLOTH
SILK
WALE
COURSE
GRAIN LINE
SELVAGE
BIAS
STAPLE
YARN
FIBER
FABRIC
FLAME RETARDANT
FELT
COTTON

Topical Outline

4.0 Sewing Equipment

- 4.1 Basic Sewing Equipment
- 4.2 Measuring Equipment
- 4.3 Pinning or Weighting Equipment
- 4.4 Cutting Equipment
- 4.5 Marking Equipment
- 4.6 Special Equipment
- 4.7 Pressing Equipment
- 4.8 Sewing Machine Parts
- 4.9 Sewing Machine Performance
- 4.10 Sewing Machine Repairs and Adjustments
- 4.11 Industrial Sewing Machine

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"Cutting Equipment," Ready, Set, Sew, by Butterick.

4.0 Sewing Equipment
4.1 Basic Sewing Equipment

GOAL STATEMENT: Student will identify and become proficient in the use of tools and equipment needed for sewing.

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 4.1 Selects and carefully uses sewing equipment for construction processes to attain the standards of quality workmanship established by instructor. (BEGINNING COMPETENCY) LEVEL II Analyzes various new or unusual items of sewing equipment in regard to cost and usefulness. (DECISION MAKING) LEVEL III Demonstrates use of Vary - form curve or French curve, L and T squares, tube turners and pointers. (BEGINNING COMPETENCY)	4.1 NOTE TO TEACHER: Develop a list of sewing equipment and supplies students will be required to buy (See Appendix 4.1A). Compose a letter informing parents of equipment and supplies student will need (See Appendix 4.1B). Design a bulletin board of table display of small equipment emphasizing good quality versus poor quality. Students view the film Basic Sewing Tools. Students in small groups or individually view the transparencies "Equipment: Part I, #8" from Sew and Sew, Butterick, following directions on folders and referring to Ready, Set, Sew. Students complete assignment: "Sewing Equipment," (Appendix 4.1C). NOTE TO TEACHER: Develop a criteria sheet for student use in judging quality of displayed sewing equipment. Individually, students go to the display of sewing equipment and use criteria sheet provided by teacher to judge quality of displayed equipment. Selected pieces may be demonstrated, such as: - Tape measure 60 inches long for measuring circumference, as well as length, with markings on both sides, starting at opposite ends. - T-square which lines up with straight selvage or rib or a fabric and can be used to chalk straight lines.

LEVEL II ACTIVITIES

4.1 NOTE TO TEACHER: Contact a fabric store in your local area to see if students can borrow special pieces of equipment. Some specialties in equipment might be: tweezer, loop turner, bodkin, awl, pointer and creaser, transparent tape, tissue paper, embroidery hoop, buttonhole scissors, dress forms, etc.

Each student selects a new or unusual piece of sewing equipment and investigates the cost, special uses, general usefulness, and if possible, tries it out and demonstrates it to the class.

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LEVEL III ACTIVITIES

4.1 NOTE TO TEACHER: Contact a fabric store in your local area to borrow a form curve or French curve, L and T squares, tube turners and pointers. These will be used as class demonstration equipment. If possible, some of these might be secured permanently.

Each student selects one of the pieces of sewing equipment listed above and investigates the cost, uses and demonstrates its use to the class.

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COMPETENCIES		LEVEL I ACTIVITIES
		- A variety of straight pins and consequences of using poor quality pins on fabrics. (Students may experiment with different types of pins and show results to class.) Each student then makes a list of equipment he or she would like to own, if possible.
LEVEL I 4.2 Selects and demonstrates correct use of tape measure, ruler, and yardstick for body measurements and pattern layout. (BEGINNING COMPETENCY)	4.2	NOTE TO TEACHER: Provide or require students to have a ruler available for pretest, "What is Your Measuring I. Q.?" Students complete pretest: "What is Your Measuring I. Q." (Appendix 4.2A) Teacher demonstrates to small groups how to measure fractions of the inch using a transparent Sewers T-square or plastic ruler on the overhead projector. How the ruler is divided into 1/2", 1/4", 1/8", 1/16" and how to read 3/8", 5/8", 3/4", 7/8" is illustrated. Metric ruler is also demonstrated by the teacher. NOTE TO TEACHER: See Appendix 4.2B for practice sheet for standard and metric systems. Students complete learning activities, "Equivalent Expressions." (Appendix 4.2C). Students complete post test: WHAT IS YOUR MEASURING I. Q? (Appendix 4.2A) Students demonstrate the ability to apply above learnings to their individual clothing construction project. See Appendix 4.2D for student handout, "How to Take Your Measurements."
LEVEL III Demonstrates use of variety of tapes and French curve for special design problems. (BEGINNING COMPETENCY)		

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
4.2 (Not taught here)	4.2 Students study the instructions for using the Vary-form curve or the French curve for designing or altering patterns. Students square a line by using the T-square to place a pattern on straight of grain. Paper showing grainlines or fabric can be used. Students should be aware that L-square is used in same way as the T-square.

4.3 Pinning and Weighting Equipment
4.4 Cutting Equipment

COMPETENCIES		LEVEL I ACTIVITIES
LEVEL I 4.3 Selects and uses appropriate pins to secure fabric to pattern. (BEGINNING COMPETENCY)	4.3	NOTE TO TEACHER: Demonstrate various methods for accurately securing pattern to the fabric: pinning; weights; scotch tape; pattern adhesive sprays.
LEVEL II Chooses appropriate methods for securing a variety of fabrics which are woven, non-woven, sheer, and novelty to the pattern. (BEGINNING COMPETENCY)		Students should follow set standards when temporarily securing pattern to fabric such as: - Marks from pins should not show on fabric or cause permanent pierce holes in fabric. - Pressure of weights should not mash nap. - Sticky tape or adhesives should not remain on fabric surface. Teacher demonstrates how to accurately place the pattern pieces using the measuring equipment to place the grainline arrows on grain and securing them according to the selected methods, such as with pins or weights. Selected students place a pattern piece on fabric using the measuring tools to place it on grain, and secure it accurately according to the method selected (e.g. pin a pattern piece to fabric and use weights for another sample).
LEVEL I 4.4 Selects and demonstrates use of scissors and shears for cutting fabric. (BEGINNING COMPETENCY)	4.4	Students individually and in small groups view and read transparency and folder about cutting tools, Ready, Set, Sew, Butterick.
LEVEL II Demonstrates use of a variety of scissors, shears, and seam rippers.		

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
4.3 NOTE TO TEACHER: Collect and display various materials as cotton, polyester, rayon and nylon in woven and non-woven textured and non-textured, sheer and heavy types of fabric. * Students select the method(s) that would be best suited in securing a pattern to the various types of materials displayed. A small group of students prepare a handout on a list of representative materials and suggest methods of securing a pattern to a particular fabric. Students experiment with different methods of securing the pattern to fabric and use a method that they have not experienced before, selecting one appropriate for the fabric (e.g., weights with knit or stretch fabric or use scotch tape method if using certain patterns for knits). Students observe demonstration showing how patterns are secured to fabric in industry by recalling methods seen when they have visited a factory, viewed in film or read in a book (e.g., tagboard patterns are pencil traced onto layers of paper that might be stapled to the top layers of fabric).	4.3 (Not taught here)
4.4 NOTE TO TEACHER: Teacher or business person demonstrares cutting tools and stress is put on: a. Scissors or shears with sharp, closely fitted blades b. Serrated shears for knits c. 5"-6" blades for trimming. 3-1/4"-4" adequate for construction tasks.	4.4 Students make a study of the qualities of the fabric they will use for their project and try different types of shears or use electric scissors to cut it to select the ones suited to the fabric being used. Students select the specialty scissors for specific details and use them according to the directions supplied.

4.4 Cutting Equipment
4.5 Marking Equipment

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL III 4.4 Demonstrates use of specialty and shears for special and design functions. (BEGINNING COMPETENCY)	
LEVEL I 4.5 Selects and uses the marking equipment that the pattern and fabric require in order to transfer pattern markings to the wrong or right side of fabric temporarily. (BEGINNING COMPETENCY)	4.5 Students study pattern symbols and markings that need to be transferred to the fabric for construction processes. Students study and complete Unit 6 in It's So, Sew Easy, pp. 29-35 or students refer to directions in a sewing instruction book and transfer markings to a sample of fabric

LEVEL II ACTIVITIES

4.4 (continued)

NOTE TO TEACHER:

d. Pinking or scalloping shears for finishing seams or fabric that easily ravels, but not for total cutting out process or heavy fabrics
e. Not using fabric shears for cutting paper thicker than tissue paper
f. Buttonhole scissors which have a screw and an adjustable blade to differentiate length
g. Use of seam rippers for slipping blade under seam thread rather than "ripping up" seam.

Students compare cutting a fabric scrap with good quality, sharp shears and one with poor quality or dull blades.

4.4 Students survey resource references about qualities to consider when selecting shears, scissors and other cutting tools.

* Selected students prepare a display and demonstrate the proper use of various shears, scissors, seam rippers that would be suitable for various fabrics - such as lightweight, sheer, nylon; broadcloth-like fabric; velvet

4.5 Refer to Section 5.6.

LEVEL III ACTIVITIES

4.3 (continued)

* Selected students would do an individual study on qualities to consider when selecting specific shears or scissors and other sewing equipment. They could then develop a handout for consumers which would explain what features to look for in quality equipment (e.g., hot, drop-forged steel or nickel-coated and chrome-plated shears and methods for testing shears).

4.5 Refer to Section 5.6.

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 4.6 Selects and demonstrates correct use of special sewing tools to accomplish specific processes according to the standards specified. (BEGINNING COMPETENCY) LEVEL II Selects and demonstrates appropriate hand and sewing machine needles for a variety of fabrics and threads. (BEGINNING COMPETENCY)	4.6 Students study in a sewing reference or use prepared transparencies or films and filmstrips to become familiar with many special or common sewing tools and supplies and the qualities to consider in selecting and using them (reference: Ready, Set, Sew, pp. 76-78. Some items to consider are: - Needles - machine and hand - Pins - regular or ball point for knits - Thimbles - Magnets - Beeswax - Pin cushions - Emery bags - Needle threaders

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
4.6 Students study "A Guide to Needle Selection," by White Sewing Machine Company, to determine the type of machine needle to use for different fabrics. Students refer to a chart on needle and thread selection and compare how the recommended sizes of hand and machine needles and thread sizes change as the weight or type of fabric changes. Sewing machine needles to compare are: - Regular sharp - Light ball point - Medium ball point - Wedge point (for use with leather and leather-look vinyls) * Students are given selected fabric samples and they choose the appropriate thread, hand and machine needle for the fabric according to the reference chart. Fabrics to use are: - a medium weight polyester/cotton blend - a corduroy - tricot - velveteen - cotton knit - polyester double knit	4.6 Students identify unusual special equipment or tools for sewing processes and describe how they are used. Individual students demonstrate how to use: - Prong type buttonhole maker - Bodkin - Loop turner

4.7 Pressing Equipment

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 4.7 Selects and demonstrates correct use of basic pressing equipment. (BEGINNING COMPETENCY) LEVEL II Selects and demonstrates use of tailor's ham, sleeve board, special pressing clothes, seam roll, clapper, or pounding board. (BEGINNING COMPETENCY) LEVEL III Selects and demonstrates use of needle board and other pressing equipment on pile fabrics and uses pressing equipment to mold and shape fabrics. (BEGINNING COMPETENCY)	4.7 Students view the filmstrip Press as You Sew by General Electric. Students identify basic pressing equipment and explain when and how to use it after either studying about various equipment from the instructions provided with it or from a reference booklet such as Simplicity Sewing Book, pp. 10-11 or Ready, Set, Sew, Unit 9. Students view a demonstration given by the teacher, a selected student or dressmaker illustrating how and when to use pressing equipment. NOTE TO TEACHER: The pieces of equipment demonstrated might include: -iron, ironing table, sleeve board, -tailor's board or point presser, -tailor's ham, velvet or needleboard -press cloths, drill cloth, wool press cloth, steam iron cloth. pressing pad to press monogram and sequinned or textured fabric, pressing mitt, seam roll, pounding block or clapper, brown paper strips, and -clothes brush. In demonstrating, the following points should be stressed: a. The iron is off when plugged in and out and when temperature is adjusted. b. Pressing is a lifting and lowering motion used to flatten seams or hemlines or to mold and shape garment parts after stitching. c. Ironing is a sliding motion used to dry washable fabrics.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
4.7 The teacher explains the use of pressing equipment suitable for the fabric and design details. Students demonstrate how to shrink out fullness when pressing in a hem to prepare it for stitching by using special pressing equipment. * Selected students demonstrate how to press: - darts on a tailor's ham - bias seam, pressing with the grain of the fabric - a corner using a tailor's board - using a seam roll to prevent ridges when seams are pressed open.	4.7 Students demonstrate how to press velvet, corduroy, or other pile fabric using a needleboard and the appropriate seam or dry temperature setting. Students demonstrate how to mold fabric areas using steam, pressure and heat. Students demonstrate pressing and shaping techniques that will preserve the texture of fabrics or on garment areas that are not to appear pressed flat, such as a hemline that is to remain without a crease at the bottom.

COMPETENCIES		LEVEL I ACTIVITIES	
LEVEL I			
4.8	Identifies the location and function of the parts of the sewing machine. (BEGINNING COMPETENCY)	4.8	NOTE TO TEACHER: An individualized learning packet on the sewing machine may be used in place of or in addition to various learning activities listed below. (See Appendix 4.8 for the "Learning Package on the Sewing Machine.")
			Students take sewing machine competency tests to earn license (Appendix 4.8).
			NOTE TO TEACHER: A bingo game can be developed on the parts of the sewing machine. Simply make up as many cards as you need by alternating the squares.
			Students complete and practice the indivualized learning activities in The Sewing Machine, booklet from the Indivualized Sewing System, by Johnson, Clawson, etc., Ginn & Co., 1974. (These activities teach students the function of the parts and manipulative skills for threading and stitching on the machine.)
			Students view and study the parts of the sewing machine and their function from the transparencies #18 Sewing Machine and #19 Sewing Machine Attachments from See and Sew by Butterick or Home Economics Sewing Clothing Construction transparencies, Unit 1, Robert Bailey Co.
			NOTE TO TEACHER: Teacher or assistant: Label parts of machine with name label.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
4.8 (Not taught here.)	4.8 (Not taught here.)

4.9 Sewing Machine Performance

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 4.9 Follows specified machine threading steps and operates the machine for personal comfort and safety. (BEGINNING COMPETENCY) LEVEL II Demonstrates the use of a variety of brands of sewing machines in zig zag stitching, darning, hemming and buttonhole making. (BEGINNING COMPETENCY) LEVEL III Compares and uses different sewing machines in terms of performance for doing special stitches including decorative stitching, pintacking, applique, monogramming, and using the attachments to ruffle, roll hems, hems, and decorative stitching. (BEGINNING COMPETENCY)	4.9 Students complete "The Sewing Machine" from the individualized program learning booklet in Individualized Sewing System and complete the sewing samples as instructed. Students view filmstrip #3, "How to Thread" from the series Learning to Use a Sewing Machine. Students listen and watch special steps for threading and inserting the bobbin as pointed out in a teacher demonstration. Students have "drag" or relay race threading the sewing machine under teacher's supervision. NOTE TO TEACHER: When conducting races, be sure to give specific directions before students start. Have students thread machine, then sew a 5/8" seam on paper or material to make sure it was threaded correctly. Students view the filmstrip You and Your Sewing Machine, The Singer Company. Students use the programmed learning booklet You and Your Sewing Machine, Part I - Basic Skills Review, and Part II - Regulating Skills (Study Guide), the Singer Co. Students might practice some of these things suggested in the booklet. Students may also use learning packet (Appendix 4.9A).

LEVEL II ACTIVITIES

4.9 In schools with a variety of machine models or students using their own or borrowed machines, students thread and sew on different models, following manual instructions, to compare differences in ease of threading and stitching quality.

Students attach different feet or parts to the machine and use the machine instruction manual to make samples using parts such as:
- zig-zag foot for stitching varying the width of the bite, length of stitch, and position of needle.

Students identify the features of a machine that would be appropriate for their needs. Questions to ask are:
-- What kind of sewing is to be done:
  - making clothes?
  - mending?
  - sewing for a growing family?
  - sewing on heavy fabrics?
  - decorative sewing?
-- Before buying, students should:
  - comparison shop at reliable retailers
  - talk to friends who have machines, and ask their experiences and how the service is.
  - check features each model offers.
  - try out the machine, using samples of fabrics.
  - understand the guarantee.

LEVEL III ACTIVITIES

4.9 Students investigate the variety of stitching and process possibilities that can be done by several machines using the parts and attachments for the machines, referring to the machine manuals.

Students consider the incorporation of any of the following possibilities in their project:
- double needle decorative stitching
- pintacking
- monograms (might write on hats, shirts, or children's clothing.)
- applique work - might decorate children's outfits.
- ruffling, using attachment
- roll hemming, using attachment
- hemming, using attachment.

Comparing different machines:
- thread each machine according to manual directions
- make one row of stitching 1/9" from edge on a single layer of medium weight fabric 5" long.
- make another row of stitching 5/8" from the edge of 2 layers 5" long.
- if the machine does decorative stitching make a row of zig-zag on the outer edge.
  - make another row 1" in from the edge
  - make decorative stitching
- use a double layer of fabric and follow directions in preceding direction.

*Record results on chart (Appendix 4.9B).

Students devise a creative project where special features of the sewing machine can be put into use (one feature might be machinery embroidery).

COMPETENCIES	LEVEL I ACTIVITIES
	4.9 (continued) Students practice stitching without thread on various lines to gain control of the machine. Sample stitching papers can be obtained from Sears, Singer, Elina. See example (Appendix 4.10B). NOTE TO TEACHER: If you want to make your own stitching practice papers, use a heavy weight paper that is not slick for best results. Students refer to a needles and threads chart to select the type of needle, needle size, and thread size for specified fabrics. Students make samples of basic stitching such as: - 5/8" seam using 10-12 stitches per inch. - machine basting 7-8 stitches per inch. - machine gathering 6-10 stitches per inch. - stitch an inward corner and an outward corner sample using pivoting and reinforcement at the corner. Students complete sewing machine stitching samples for sewing machine competency tests (Appendix 4.10A). * Upon successful completion of all parts designated, students receive their Sewing Machine Operator's License (Appendix 4.9A).

4.9 (continued)
- overlock stitching
- blind hem stitching
- buttonholes (corded buttonholes)
- patch
- darn (students might recycle some of their own clothes or those for others using this).
- sew on buttons
- hemmer foot
- double foot
- gatherer

Students experiment with various fabric types and weights that may require more understanding of machine adjustment - such as with thick or slippery fabric. Referring to instructional booklets, students adjust the machine to stitch both functional and decorative stitching.

Students study the leaflet, "Sewing Machines," a consumer buying guide from J. C. Penney's.

Students invite representatives from a variety of companies to bring different models of their machines to demonstrate and have students evaluate. For this "sewing exhibition" representatives could all be asked to come on one day or preferably on several days to allow students to complete their analyses. Students evaluate the machines in terms of their needs using the Penney leaflet.

COMPETENCIES		LEVEL I ACTIVITIES	
	LEVEL I		
4.10	Follows directions for routine care, cleaning and oiling of sewing machine and fixing minor problems. (BEGINNING COMPETENCY)	4.10	Students refer to their machine manual and clean and oil their machine following directions given. (If someone has just oiled the machine, students just locate the oiling places.)
	LEVEL II Demonstrates adjusting the tension for different threads and fabrics and making common machine repairs. (BEGINNING COMPETENCY)		Students listen to how a machine sounds when the needle is blunt. Students refer to their sewing machine manuals for instructions "when something goes wrong." Students remove and replace the sewing machine needle. Students refer to a needle and thread chart to select the size needle for the fabric and thread being used. NOTE TO TEACHER: Refer to sewing machine manual or references for problems encountered while operating the sewing machine. Singer has good references.

4.10 Students do some experiments to perceive how tension adjustment affects machine stitching.

Students perform the test for balanced thread tensioning:

- Cutting a square on straight grain at least 4" square, fold diagonally and cut along the fold that is on the true bias.
- Pinning and stitching together on the bias using the appropriate needle for the fabric and cotton thread. (Silk and synthetic or combination threads will stretch and won't break properly.)
- Observing seam appearance, it should not pucker and stitches should look the same on both sides.
- Grasping at both ends and pulling quickly to break the thread. (If both top and bobbin threads break at the same point, the tensions are balanced. If only the top breaks, the top tension is too tight and needs loosening.) (If only the bottom breaks, the top tension needs increasing.) (If that doesn't correct it, the bobbin tension screw may need loosening. The teacher demonstrates the "yo-yo" method.)

NOTE TO TEACHER: For some machines that have a removable bobbin case, the tension for the thread being used can be tested by inserting the bobbin in the case and then letting it "drop like a yo-yo." It should fall freely 6"-10". If it doesn't drop, the tension is too tight. If it falls too far, the tension is too loose.

4.10 Sewing Machine Repairs and Adjustments

COMPETENCIES

4.10 (continued)
Students observe how some threads ravel or fray when pulled with enough tension to break. These threads are to be avoided.

Students observe how stitching looks when:
- upper tension is too tight or too loose.

Students adjust the pressure of the machine for the fabric being used applying these steps:
- pin the ends of 2 fabric pieces on the lengthwise grain, using 2 pieces that are the same length.
- stitch without thread.
- feed fabric through machine without strain, slack or feed-dog imprint
- (too much pressure causes the top layer to bubble.)

Students examine and experiment with fabrics that require more understanding of machine adjustment and skill in handling. Suggested samples:

knits	tricot	velvet
fake fur	lace	sheers
jersey	plaid	felt

Pressure hints:
- texture of fabric affects required pressure for the fabric to feed smoothly.
- less pressure is required for thick, soft, or fluffy fabric.
- more pressure is required by thin, crisp, or flat fabrics.
- most machines require the pressure foot to be down when adjusting pressure.

4.10 Sewing Machine Repairs and Adjustments

COMPETENCIES

4.10 (continued)

Students view Part I of "How to Stay Out of Trouble" from First Aid for Sewing Machine, Singer, which deals with preventive maintenance.

Students view the filmstrip Part II, "How to Get Out of Trouble," from First Aid for Sewing Machines, Singer, which shows corrective maintenance and solving minor problems if they do occur.

4.11 Industrial Sewing Machines

COMPETENCIES	LEVEL
LEVEL II	
4.11 Identifies differences between industrial sewing and home machines. (BEGINNING COMPETENCY)	4.11 (Not taught here)

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
4.11 Students go on a field trip to a needle trade school, garment factory, monogram shop or where home accessoreis such as draperies, bedspreads are made, an upholstery shop or a visit to a mattress factory to observe the work procedures and mass production of products. Students look for machine features which make the process speedy and also note what sacrifices might be made in quality in order to produce a great quantity. Students identify special machines used such as: - blindstitch - overlock - buttonhole - hemmer - heavy duty straight stitch Industrial machines may be multipurpose: - heavy duty straight stitch - more powerful and speedy - overlock - 1/4" seam and seam is "finished" as it's made. Outer edge of fabric is cut off as it sews. Industrial machines usually have: - knee control for the presser foot lifter - large foot speed control Special process procedures: - assembly line steps done by various different operators - the method taught is used by everyone doing that process.	4.11 (not taught here)

Appendix 4.1A

NAME _____

EQUIPMENT NEEDED FOR SEWING CLASS

Sewing requires several pieces of small equipment. The Home Economics Department asks that the student bring some of these things from home. These may be found around the house or purchased at a notions counter. If purchased, good quality equipment should be selected for better service and longer wear.

Personal equipment should include:

____pencil and paper
____pins (steel, fine dressmaker type suggested)
____needles (package of various sizes)
____pin cushion (wrist type suggested)

____tracing wheel and carbon paper
____seam gauge (6" ruler with movable indicator)
____tape measure (metal tipped, cloth or plastic, 60" long, reversible)

____scissors (sharpness is important)
____seam ripper

____bobbin (may be rented from the department for 25¢ or you may purchase your own)

____buttons (various types for samples)
____snaps
____hooks and eyes

____sewing machine needles (1 package, medium size)
____thimble
____thread - several spools contrasting thread

____several large scraps of material for practice and samples
____small box for equipment (candy bar box or shoe box, etc.)
____hanger and two clothespins
____sewing book (teacher's preference)

DUE DATE** _____

Departmental Equipment Available for You to Use:

Sewing machine and attachments
Shears
Pressing equipment
Storage tray for all of your equipment
Hemming equipment

**ALL EQUIPMENT SHOULD BE MARKED WITH THE STUDENT'S NAME. THERE WILL BE AN ENGRAVER AVAILABLE IN CLASS TO PERMANENTLY MARK EQUIPMENT.

Appendix 4.1B

Letter to Parent Regarding Sewing Equipment

Home Economcis Department

Dear Parent:

Your son/daughter will be needing basic sewing equipment for use during this course. Attached is a check sheet of equipment that the student will need to have in class by _____.
(due date)

Please do not purchase pattern or fabric until information in class is covered concerning these areas. A letter will be sent home with students at a later time explaining requirements for fabric, suggested pattern styles, interfacing, etc.

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It is very important that these supplies be in class on the day assigned so that your son/daughter does not get behind in his/her work.

We hope that your son/daughter enjoys this semester and will gain knowledge, skills and an interest in sewing for herself/himself and for others. I would like to welcome you to come in and visit with me during my consultation period from _____ to _____ if you have any questions.

Thank you very much for your cooperation and help.

Sincerely,

Clothing Construction Teacher

Appendix 4.1C

SEWING EQUIPMENT

Competency:

On completion of this area of study, the student will be able to identify and collect the equipment and materials found in an adequate sewing kit.

Resources:

Clothing construction reference books.
Attached "Little Dictionary of Equipment Terms" by Simplicity.

Activities:

1. Read the attached "Little Dictionary of Equipment Terms" and study the illustrations.

2. On a separate sheet of paper distinguish between the following pieces of equipment:

   Shears and scissors

   Tailors' wheel and tailors' chalk

   "Sharp" needles and "crewel" needles

   Ironing board and sleeveboard

   Tailors' ham and pressing block

   Snaps and hooks and eyes

3. List articles for a basic sewing kit such as a person would need while living in a dormitory at college or sharing an apartment with a roommate.

Appendix 4.2A-1

WHAT IS YOUR MEASURING I.Q.?
(pretest and post-test)

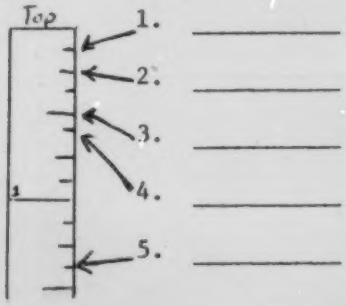
Using a ruler, measure each line, from end to end. Write your answer after "is." Measure accurately to the nearest eighth inch, stating the fraction in its lowest terms.

1. _____	is _____	6. _____	is _____
2. _____	is _____	7. _____	is _____
3. ___	is _____	8. _____	is _____
4. __	is _____	9. _____	is _____
5. _____	is _____	10. _____	is _____

Using a ruler draw the following lines.

1. 1"
2. 1/2"
3. 1/4"
4. 1/8"
5. 3/8"
6. 5/8"
7. 3/4"
8. 7/8"
9. 1 5/8"
10. 2 1/2"

What is the distance that the arrow points to from the top end of the ruler for each question?



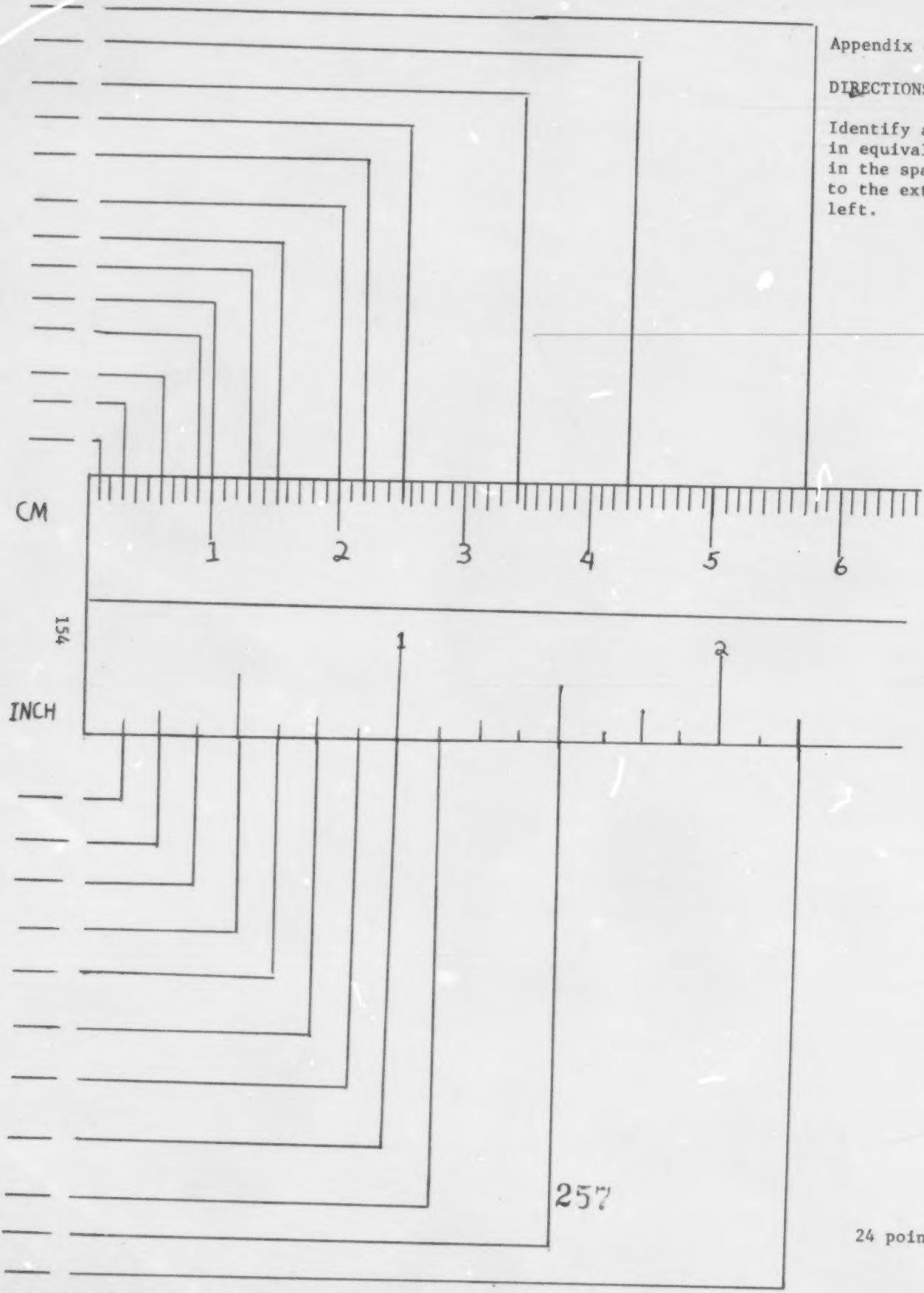
Some measurements can be written so that they mean the same thing. For example: $\frac{3}{4} = \frac{6}{8} = \frac{12}{16}$ Write the number that makes each question part or parts complete.

1. $\frac{1}{4} = \frac{\quad}{8}$
2. $\frac{1}{8} = \frac{\quad}{16}$
3. $\frac{1}{2} = \frac{\quad}{4} = \frac{\quad}{8}$
4. $\frac{3}{4} = \frac{\quad}{8}$

Appendix 4.2A-2

DIRECTIONS:

Identify and fill in equivalents in the space to the extreme left.



24 points

Appendix 4.2B-1

BASIC SKILLS PRACTICE SHEET
EQUIVALENT EXPRESSIONS (10)
U. S. STANDARD MEASUREMENTS

1. How many eighths are there in 1 inch? _____
2. What part of an inch is 2/8? _____
3. What part of an inch is 4/8? _____
4. Which is larger 1/4 or 1/8? _____
5. Which is larger 3/8 or 1/4? _____
6. How many inches are there in 1 foot? _____
7. How many inches are there in 2 feet? _____
8. How many feet are there in 1 yard? _____
9. How many inches are there in 1 yard? _____
10. How many yards are there in 36 inches? _____
11. Change 36 inches to feet. _____
12. How many inches in a half a yard? _____
13. How many inches in a 1/3 of a yard? _____
14. How many inches in 2/3 of a yard? _____
15. How many inches in 7/8 of a yard? _____

Metric System

16. How many millimetres in 1 cm? _____
17. How many millimetres in 2 cm? _____
18. How many millimetres in 10 cm? _____
19. How many centimetres in 1 m? _____
20. How many centimetres in 2 m? _____
21. How many centimetres in 10 m? _____

Problems in Conversion

22. Bust 34" = _____ cm
    pattern company uses 2.54 = 1 inch

23. Waist 26 1/2" = _____ cm
    pattern company uses 2.54 = 1 inch

24. 1 yard of fabric = _____ m
    pattern company uses 2.5 = 1 inch

25. 2-3/8 yards of fabric = _____ m
    pattern company uses 2.5

Draw lines below of the given lengths:

26. 5/8 inch 27. 1.5 cm 28. 1.3 cm 29. 1/2 inch 30. 1/8 inch

31. 1 inch 32. 2.5 cm 33. 1/4 inch 34. 6 mm 35. 3/4 inch

26.

27.

28.

29.

30.

31.

32.

33.

34.

35.

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NOTE TO TEACHER: The Metric System is a way of measuring, a way of thinking and of solving problems. It is innovative and inventive (intelligence and imagination intuitively coordinated). Also, it is managerial - planning, scheduling, logically organizing. It is not a complicated and magic process, nor is it measuring with a capital M. It's been around a long time!

Clothing Home Economists are beginning to wonder how they will teach metrics. How important is it to include in the curriculum? Will legislatures really propose it and will Congress really pass a law on it? It appears to be a coming thing as Congress advocates a ten year metrication program already with the emphasis being on the nation's schools.

NOW, seems to be the key-word! Just how the metric system will affect the clothing program remains to be seen. Some concerns may be: What will we do with the old patterns? Will the seam measurements change? How involved will the individual become in the converting process? To relieve the minds of the teacher and the students concerned, the change will be gradual.

Most pattern companies are in the process of making the necessary changes already, (as of this printing), the current (1976) updated sewing books and pattern direction sheets are using the metric equivalent in parenthesis throughout the entire books and direction sheets.

Here are a few of the changes developing in the clothing environment today to which these concepts may make a real contribution:

1. Most pattern companies are using 2.5 cm equals 1 inch and not 2.54 cm, because it makes for easier conversion. However, in some cases 2.54 is used.

2. A metric chart is given converting inches and yards to centimetres and metres of the following:

   1. Body measurements
   2. Fabric widths
   3. Fabric lengths
   4. Sewing notions

Conversion equivalents are as follows:

			used with:
1/8"	=	3 mm	
1/4"	=	6 mm	Cleanfinish/other
3/8"	=	9 mm	Topstitching/other
1/2"	=	1.3 cm	Staystitching/other
5/8"	=	1.5 cm	All seams unless otherwise stated
3/4"	=	2.2 cm	Zipper seams/other
1"	=	2.5 cm	Hems/other
2 1/4"	=	5.7 cm	Hems/other

3. Pattern Envelopes

   A. No change in SIZE NUMBER

   B. No change in FIGURE TYPES

   C. Some companies are converting the "Bust" measurement and showing it in parenthesis on the front of the envelope.

   D. A metric ruler is found on the back of the pattern envelope.

   E. Most of the changes with patterns is found on the inside of the envelope. It is easy to pull the envelope and compare it with the Standard U.S. Decimal System on the back of the pattern envelope.

Whether or not an individual is highly involved in the clothing construction process, he/she will inevitably be constantly involved in metric decision-making as a consumer. The students should familiarize themselves with some metric vocabulary in the clothing area. For this reason the millimetre, centimetre

and metre are the only terms suggested to study. A Learning Activity has been designed to motivate the students' interest in changing to the metric system. The exercise involves minimum teacher-aid time and will require a short introduction for maximum student clarification. The exercise included in the Learning Packet gives a basic understanding of expressions of equivalents in the Metric System and the Standard U.S. Decimal System (See Appendix 4.2C). Other exercises can be devised by the teacher using the Metric Chart printed on the Direction Sheet and comparing the Standard Measurements on the back of the pattern envelope.

Appendix 4.2C

Equivalent Expressions
Basic Skills

Competency:

The students will demonstrate the use of the standard U. S. measurement system and the metric system to accurately apply measurements when constructing a garment.

Resources:

Illinois Teacher, 1974-75 issues

Butterick Publishing, P. O. Box 1945, Altoona, Pa. 16603

Pattern envelopes and direction sheets

Activities:

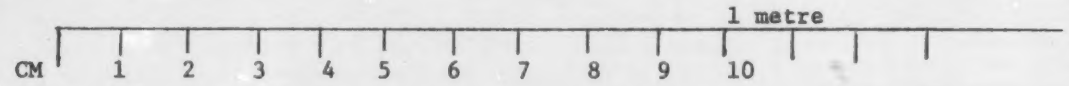
Read the attached sheet, "Metric System."

METRIC SYSTEM

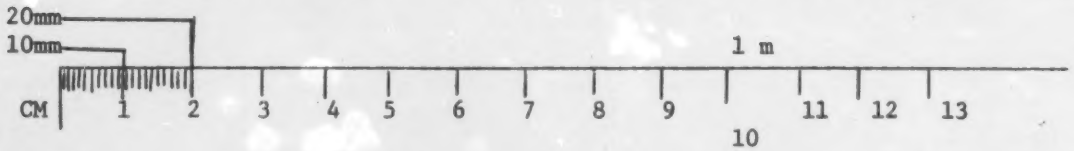
The following terminology will help you in learning the Metric System in the clothing construction area:

metric ruler and metric tape measure
millimetre
centimetre
metre

The metre is used to measure length in the metric system. The metre is a unit of measurement made up of 10 parts (10 centimetres).



A centimetre is a unit of measurement made up of 10 parts (10 millimetres).



The centimetre and millimetre are divisions of the metre, which at this point is sufficient to give a working knowledge in the clothing area.

REMEMBER THE FOLLOWING:

1. 10 millimetres equals 1 centimetre
2. 100 centimetres equals 1 metre

NOW, LET'S GO TO THE STANDARD U.S. DECIMAL SYSTEM and compare it to the Metric System. (Teacher reminder: The pattern companies are using 2.5 cm = 1 inch instead of 2.54 for purposes of ease in converting.)

1/8 inch	equals				3 mm		
2/8 inch	equals	1/4 inch	equals		6 mm		
3/8 inch	equals				9 mm		
4/8 inch	equals	1/2 inch	equals		1.3 cm		
5/8 inch	equals				1.5 cm		
6/8 inch	equals	3/4 inch	equals		2.2 cm		
8/8 inch	equals	1 inch	equals		2.5 cm		
12 inches	equals	1 foot	equals		30 cm		
36 inches	equals	1 yard	equals		90 cm	equals	9.90 m
		2 1/2 yards	equals				2.30 m
		3 1/3 yards	equals				3.80 m

Appendix 4.2D -1

HOW TO TAKE YOUR MEASUREMENTS

_____ BACK WAIST LENGTH

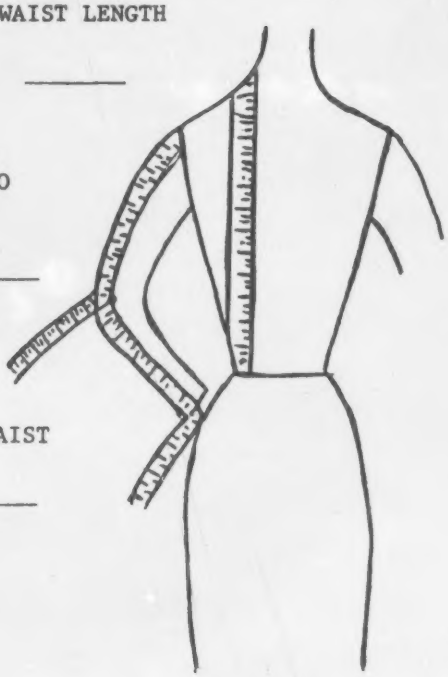
BUST _____

WAIST _____

HIPS _____

FRONT WAIST LENGTH

_____

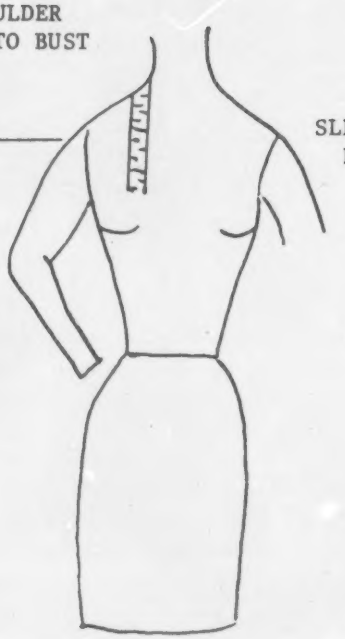


SLEEVE: SHOULDER TO ELBOW

_____

SHOULDER TO BUST

_____

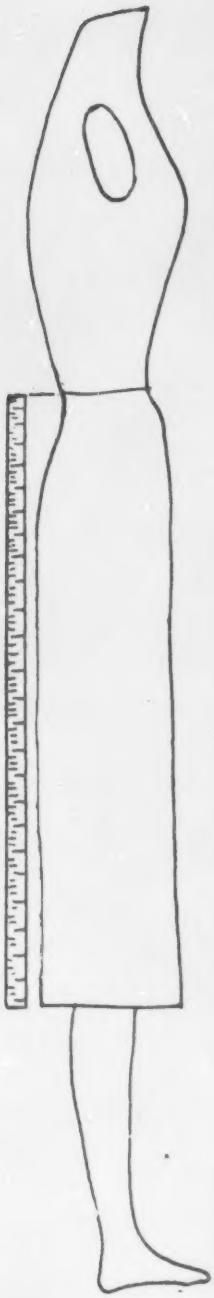


SLEEVE: ELBOW TO WAIST

_____

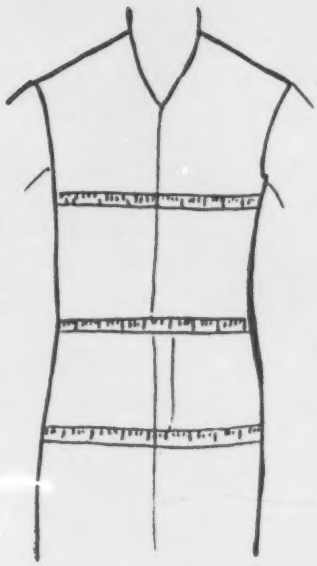
BACK SKIRT LENGTH

_____



Appendix 4.2 D-2

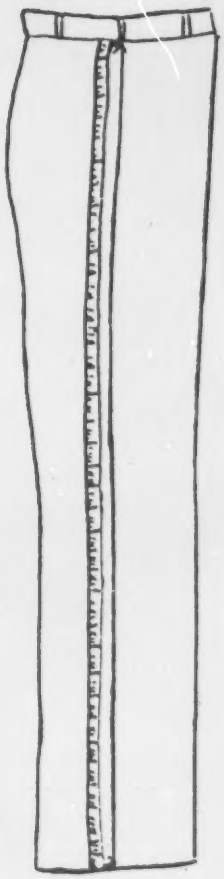
HOW TO TAKE YOUR MEASUREMENTS



Chest _____

Waist _____

Hips _____



Length
from
Waist
to
Ankle _____

Sleeve
Length
Shoulder
to
Wrist _____

Appendix 4.8-1

LEARNING PACKAGE ON THE SEWING MACHINE
Judy Farrar

(Teacher's Section)

INSTRUCTIONAL APPROACH:

Make this learning package available and let the student use the discovery approach, no pre-instructions necessary.

This learning package will benefit students who are in a class and those who do not know how to operate a sewing machine correctly.

SPECIAL INSTRUCTIONS:

As an instructor you will need to provide:

- Sewing Machine (This package has been designed to be used with Bernina sewing machine model #817-but can be adapted for use with other brands)
- Sewing Machine Needle
- Bernina Guide Book
- Teen Guide to Homemaking textbook
- Young Living textbook
- Steps in Clothing Skills textbook
- Scraps of fabric

Each Student Will Need To Have Following Equipment:

- Scissors
- Straight pins
- Spool of thread (any color)
- Bobbin (To Fit Bernina Model #817, may buy or rent)
- Pencil or pen

KEY TO PRETEST: See following pages.

KEY TO POST-TEST: See following pages.

RESOURCES:

Barclay, Marion S., Frances Champion, Jeanne Hayden Brinkley and Kathleen W. Funderburk. Teen Guide to Homemaking. New York: McGraw-Hill Book Company, 1972.

Bernina Guidebook. Steckborn TG/Switzerland: Fr. Gegauf Ltd. (Manufacturers of Bernina Sewing Machines).

Clayton, Nanalee. Young Living. Peoria, Ill.: Chas. A. Bennett Co., Inc., 1970.

Dunn, Lucille, Annetta Bailey and Wanda Vansickle. Steps in Clothing Skills. Peoria, Ill.: Chas. A. Bennett Co., Inc., 1970.

Johnson, Hildegarde, Barbara Clawson and Sarah M. Shoffner. Sewing Step-by Step. Boston: Ginn and Co., 1969

Teacher's Demonstration of Sewing Machine . . . . . .

Cost of Machine -
Cost of Cabinet -

Name Parts - Use:

Spool pin
Thread guides
Take-up lever
Needle screw - Needle clamp (Show how to insert needle, flat side away from you)
Presser foot - (Show changing) - Holds material.
Thread cutter
Feed dogs/drop feed - Moves your material
Seam guide lines/ 5/8", 1/2", 1/4"
Bobbin winder
Stitch selector - Always on straight stitch or 0 for most purposes.
Tension - DO NOT TOUCH
Bobbin tension - DO NOT MOVE
Big wheel - HANDWHEEL or Fly wheel (Always turn toward you)
Small wheel - HANDWHEEL RELEASE (for winding bobbin)
Light switch
Big knob - STITCH WIDTH REGULATOR (Should be on 0 for straight stitching, most purposes)
(For widest width set on 4)
Little knob - NEEDLE POSITION (Use on 2 setting, except when putting in zipper)
Stitch length regulator (hold up for reverse/backstitching)
Drop feed lever - (Should always be left)
Needle plate

Show UPPER THREADING
Threading Bobbin
Inserting Bobbin into case and machine
Bringing up bobbin thread

Appendix 4.8-3

KEY: SEWING MACHINE POST-TEST

Points

(20) 1. Pencil paths for threading machine and winding of bobbin is same as on pretest. Parts of machine listed below:
1. Stitch length regulator, 2. Handwheel, 3. Bobbin winder spindle, 4. Spool pin, 5. Take-up lever, 6. Light switch, 7. Presser foot, 8. Needle plate, 9. Needle clamp, 10. Control knob for drop feed.

(10) 2. Teacher checks machine sometime during student's test. Check Guide Book will cover details.

(15) 3. Square fabric sample should be checked for 5/8" seam allowance, permanent stitching, correct backstitching in place required, and proper pivoting at corners. It's a good idea to have a fabric sample done by teacher to show correct method. Also cutting.

(15) 4. Fabric sample from round pattern should be checked for proper cutting, following 5/8" seam allowance, permanent stitching and stopping where they began stitching.

(2) 5. Flat side of needle away from you.

(1) 6. 10-12 stitches per inch for permanent/standard stitching.

(1) 7. 6-8 stitches per inch for basting stitch.

(1) 8. Check to see if students put name on paper and stapled fabric samples on back of test.

65 TOTAL POSSIBLE

100% = 65
90% = 58
80% = 51
BELOW 51 POINTS MUST REVIEW LEARNING EXPERIENCES AND RETAKE POST TEST

Appendix 4.8-4
(also see Apendix 4.9A)

SEWING MACHINE OPERATOR'S LICENSE

NAME _____

School _____

The student named above has met the requirements for operating the Sewing Machine. This license entitles the student to all of the privileges for using the sewing machine and other equipment in the sewing room, provided she remembers to follow all the rules of courtesy and fair play.

SIGNED: _____

REQUIREMENTS: SATISFACTORY SKILLS IN THE FOLLOWING:

1. Threading the Machine
2. Inserting the Bobbin
3. Bringing up Bobbin Thread
4. Stitching a Straight Line
5. Naming Important Parts

SEWING MACHINE OPERATOR'S LICENSE

NAME _____

School _____

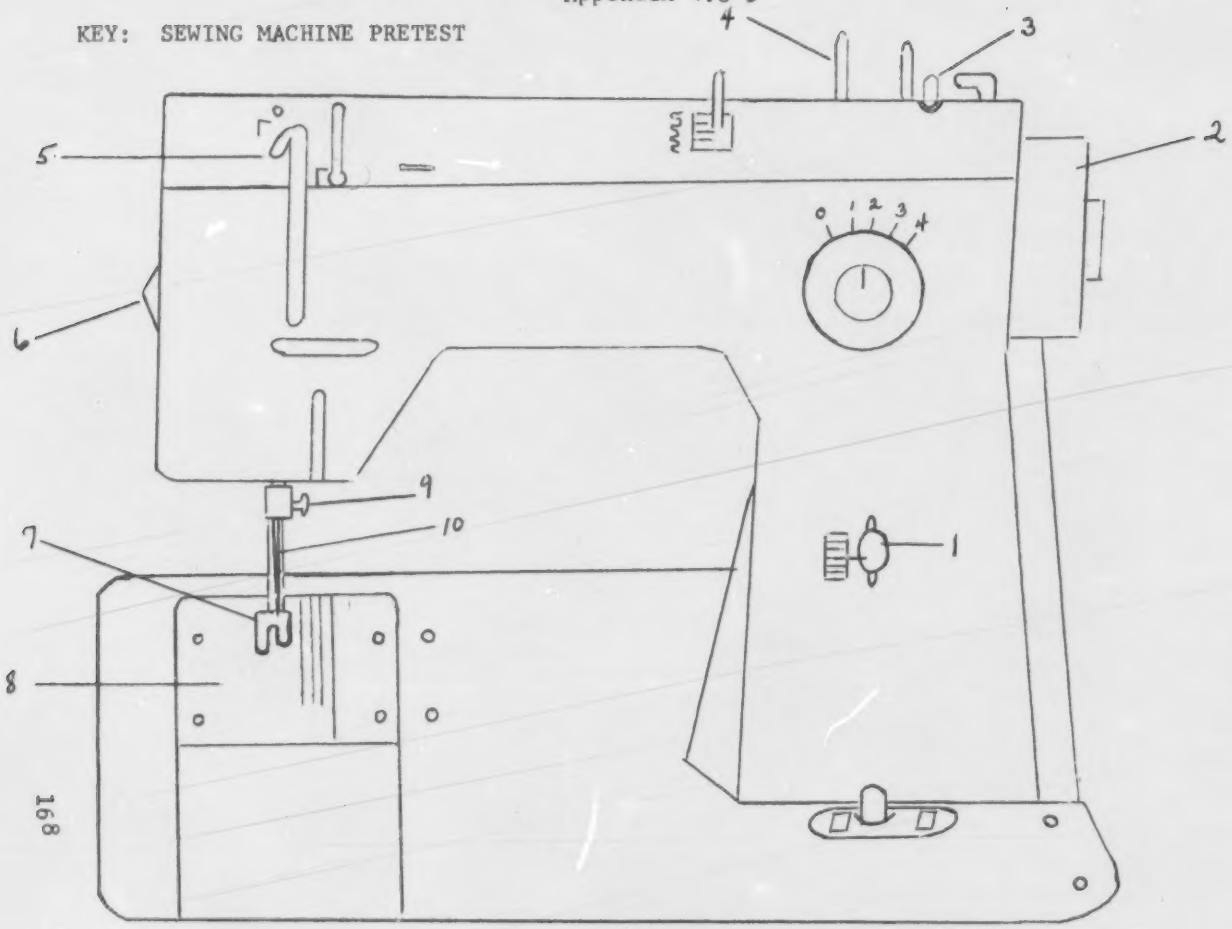
The student named above has met the requirements for operating the Sewing Machine. This license entitles the student to all of the privileges for using the sewing machine and other equipment in the sewing room, provided she remembers to follow all the rules of courtesy and fair play.

SIGNED: _____

REQUIREMENTS: SATISFACTORY SKILLS IN THE FOLLOWING:

1. Threading the Machine
2. Inserting the Bobbin
3. Bringing up Bobbin Thread
4. Stitching a Straight Line
5. Naming Important Parts

KEY: SEWING MACHINE PRETEST



A. With pencil line, show path for upper threading on the sewing machine illustrated above. (13 points)

B. With pencil line, show path for winding the bobbin on the sewing machine illustrated above. (13 points)

C. In space provided, name the parts of the sewing machine illustrated above. (10 points)

1. Stitch Length Regulator
2. Handwheel
3. Bobbin Winder Spindle
4. Spool Pin
5. Take-up Lever
6. Light Switch
7. Presser Foot (Sewing Foot)
8. Needle Plate
9. Needle Clamp
10. Needle

D. There are 10-12 stitches per inch for a standard stitch length. (Fill in - 2 points)

E. There are 6-8 stitches per inch for a basting stitch length. (Fill in - 2 points)

. . . . . .

40 POINTS POSSIBLE: (Students must pass with 80% or more correct) (100% = 40 points, 90% = 36 points, 80% = 32, BELOW 32 points must complete learning package.

Appendix 4.8-6

Judy Farrar

LEARNING PACKAGE ON THE SEWING MACHINE

STATEMENT OF PURPOSE: This learning package is designed to assist the student in understanding the operation of a sewing machine.

PERFORMANCE LEVEL: This learning package is designed for first level home economics students. The time required to complete this learning package is approximately 3 to 4 days.

COMPETENCY: Upon completion of this learning package, the student will be able to thread and operate a sewing machine correctly. The student will also be able to identify major parts of the sewing machine.

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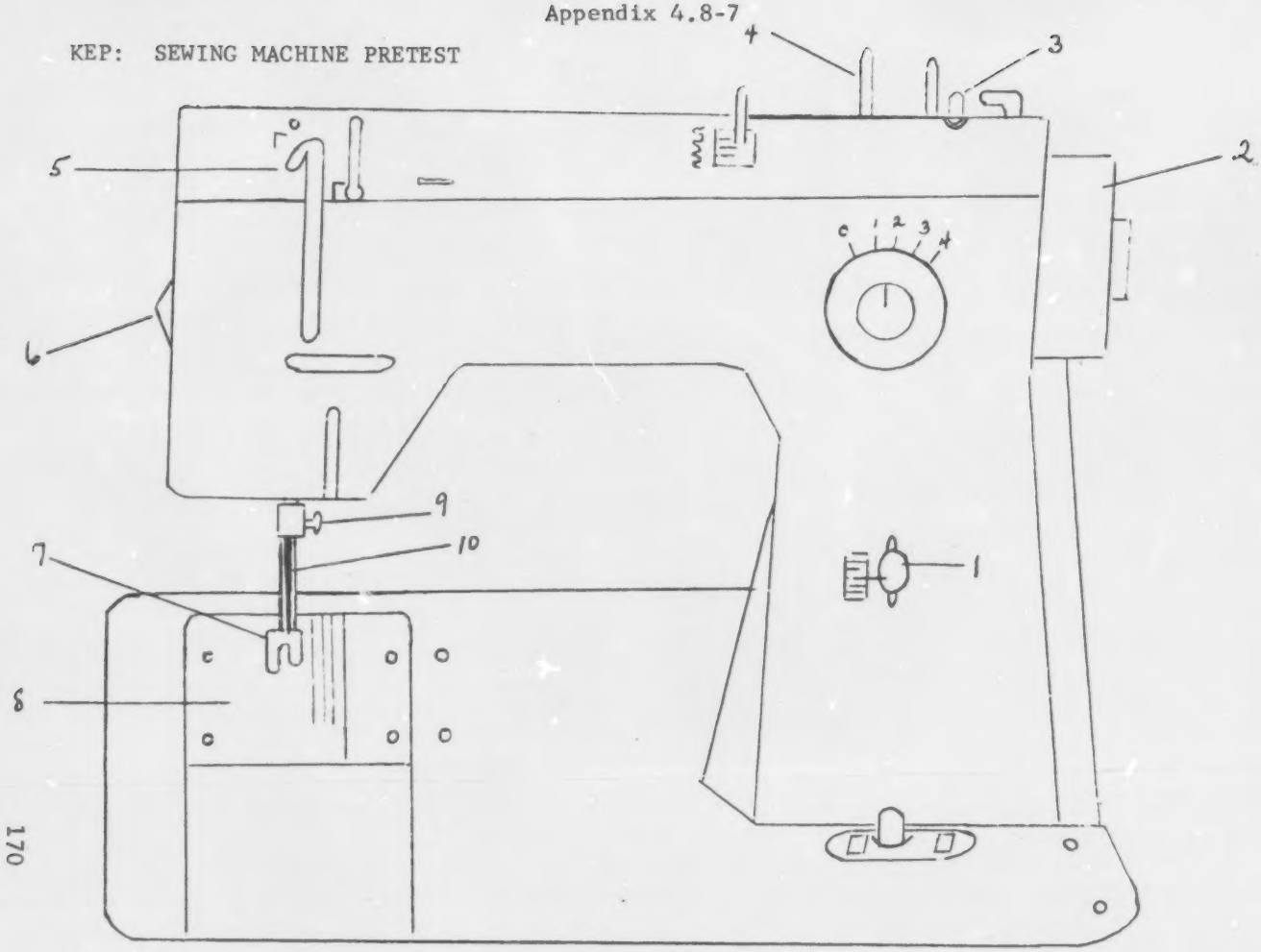
PRE-EVALUATION INSTRUCTIONS: The following test is to help you find out the extent to which you understand the basic principles for operating a sewing machine.

Take the test on the following page and then ask the teacher for the key to grade it. Turn pretest into teacher. If you score 80 percent you may skip this learning package. If your score is under 80 percent do the learning experiences until you think you know the basic principles for operating a sewing machine and then take the post test. Turn post test into teacher for grading. If you need more work to pass the post test, you may go back and review the learning experiences.

KEP: SEWING MACHINE PRETEST



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A. With pencil line, show path for upper threading on the sewing machine illustrated above. (13 points)

B. With pencil line, show path for winding the bobbin on the sewing machine illustrated above. (13 points)

C. In space provided, name the parts of the sewing machine illustrated above. (10 points)

1. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

D. There are _____ stitches per inch for a standard stitch length. (Fill in - 2 points)

E. There are _____ stitches per inch for a basting stitch length. (Fill in - 2 points)

Competencies:

The student will be able to thread and operate a sewing machine correctly.

The student will be able to identify major parts of the sewing machine.

Check ( ) Below after completion

INSTRUCTIONS FOR LEARNING EXPERIENCES

_____ I. Read one of the two sections from books listed below for a basic background on sewing machines and terms relating to the machine.

STEPS IN CLOTHING SKILLS, by Lucille Dunn, 1970 edition. Pages 242 - 257

(OR)

TEEN GUIDE TO HOMEMAKING, by Marion Barclay, 1972 edition. Pages 311 - 313

_____ II. Read attached information sheet at the sewing machine, so you can identify parts described on the illustrated drawing with the actual sewing machine. You will need a spool of thread (any color) and bobbin so you can practice threading. Study information sheets carefully.

_____ III. Watch demonstration given by teacher on threading and operating the sewing machine. (This will be given either to the entire class at one time, or to small groups.)

_____ IV. Complete either the Grid Puzzle or Crossword Puzzle attached.

_____ V. Using practice patterns attached, with no thread in machine, practice sewing on the paper following lines to enable you to sew straight and curved lines. Practice backstitching and learn to pivot your machine to turn corners.

_____ VI. IF YOU THINK YOU KNOW HOW TO OPERATE A SEWING MACHINE AND KNOW THE NAMES OF THE PARTS OF THE MACHINE AND HAVE DONE THE ABOVE LEARNING EXPERIENCES, TAKE THE POST TEST. Hand into teacher for grading.

After taking and passing post-test with 80 percent, you will receive an operator's license for the sewing machine. Select a short starter project, have it approved by teacher, then proceed to make it. Some examples are suggested below. If you have any other ideas for a short project, check with the teacher. Choose a project you think you can complete in one week of class time. When finishing starter project, turn into teacher for grading.

Stuffed Animals
Cloth Purse
Fabric Hat
Pillow
Quick apron
Cloth placemats

Suggested starter projects to be completed within one week of class time.

SEWING MACHINE INFORMATION SHEET

Attached is an illustrated drawing of the Bernina , model #817. The major parts of the have been numbered and named. Learn to identify the parts of the correctly and locate them on your machine. The path for upper threading, winding of the bobbin and inserting bobbin into case are also illustrated. Following the illustrated drawing general information regarding machine is summarized. Read thoroughly and follow directions carefully.

See your Bernina Guide Book on following pages to give you a detailed illustration and information on following areas:

Page 3 - Parts of the Machine

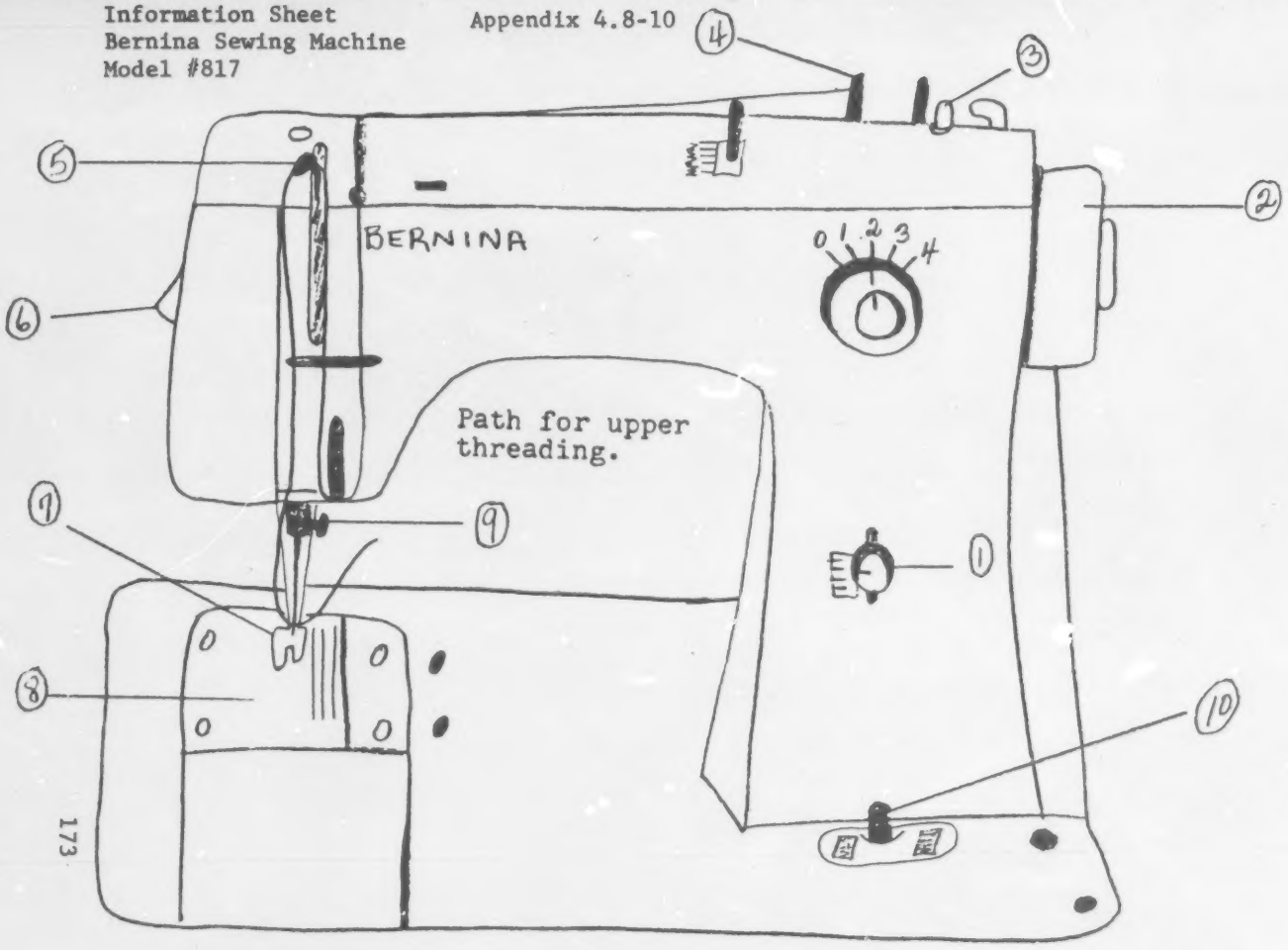
Page 6 - Bobbin Case

Page 6 through 8 - Threading the Machine

Page 9 - Changing Presser Feet

Information Sheet
Bernina Sewing Machine
Model #817

Appendix 4.8-10



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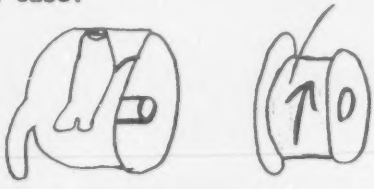
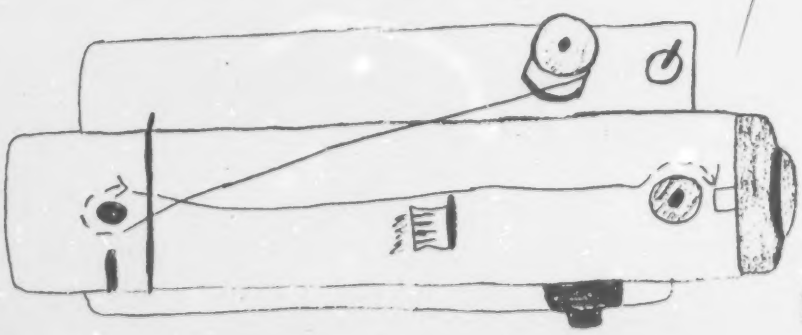
The drawings on this page illustrate the path for threading the bobbin, upper threading, and path for winding the bobbin.

Note direction of thread when inserting bobbin in case.



Path of thread for winding bobbin.



Release handwheel before winding thread on bobbin.

Information Sheet Continued

A. Below are names of some of the major parts of the machine. (See illustration on previous page.)

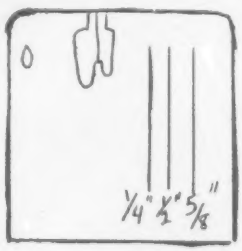
1. Stitch Length Regulator
2. Handwheel
3. Bobbin Winder Spindle
4. Spool Pin
5. Take-up Lever
6. Light Switch
7. Presser Foot
8. Needle Plate
9. Needle Clamp
10. Control Knob for drop feed

B. There are 10-12 stitches per inch for a standard stitch length. Stitch length regulator would be set on about 1-1/2 to 2.

C. There are 6-8 stitches per inch for a basting stitch length. Stitch length regulator would be set on 4.

D. When replacing a sewing machine needle, the flat side goes away from you (toward the back of the machine).

E. A standard seam allowance is 5/8". There are three guide lines on your needle plate. Learn to use them. Closest to the needle is 1/4", middle line is 1/2", and line furthest from needle is 5/8". See illustration below:



F. When pivoting, leave needle in material when you raise the presser foot lever to turn material to the angle you desire.

G. To backstitch, raise the stitch length regulator up and hold while stitching in reverse.

H. Read pages from your Bernina Guide Book listed below. This will give you detailed information in following areas:

Page 3 - Parts of the Machine

Page 6 - Bobbin Case

Page 6 through 8 - Threading

Page 9 - Changing Presser Foot

CROSSWORD PUZZLE

ACROSS:

1. _____ _____ holds thread spools of various sizes.
2. _____-_____ _____ controls flow of needle thread.
3. _____ _____ holds bobbin in place.
4. _____ _____ _____ controls length of stitches.

DOWN:

5. _____ carries thread through fabric to form stitch.
6. _____ _____ holds fabric in place while sewing.
7. _____ _____ guides the thread into proper position in order for machine to run properly.
8. _____ _____ holds needle in place.
9. The _____ controls movement of take-up lever, needle, and feed.
10. The _____ _____ has guidelines to help you keep seams straight.
11. _____ _____ moves the fabric under the presser foot.

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Appendix 4.8-13

PUZZLE

Appendix 4.8-14

GRID PUZZLE

S O E P Z R T X O M N Y Z T B A C S V X U S

P P B D E F J I K L S R U E M T Y V Z B I E

E O O A D G K L M U V W T U K L T U A B F B

D P B O E F J N O T S X S B D J S V Z C E A

I O B B L H I P Q R Z Y Z C R K R W Y A G E

U R I C D P R E S S E R F O O T R X Y H I J

G Z N E F M I B Z M N C D E P L P Y W J K K

D Y C G H M O N A L O B F G F M O Z V M L U

A X A J I Y P E Z U P A W H E N N M U N O Y

E W S K L X Q E Y W Z U V Z E O M N T P Z V

R V E N M L R D W Z R Y T S D P L O S V R X

H U Q D P Z S L X Y S X Q R V Q K E R W U P

T T R U V Y T E W X T W P O U R J T Q X T M

L S S T W X U C V W U V M N T S I A P Y S N

M S T I T C H L E N G T H R E G U L A T O R

O A I J M N O A W V U S X Y C F N P S A E O

N H E K L U A M X T Y T W Z D H M E I O U Y

Y C F I O B P P S R Z U V B E I J L E L M Z

X E D H C T I W S T H G I L R Q K D J K I S

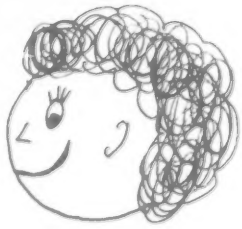
V W L E E H W D N A H L M N O P L E M L K T

Z T A E I O U D J I L K O N P M Y E E M D E

O R Y N Z E I P Q R S U I J K L O N A R O I

To find the words read the letters forward, backward, up, down, or diagonally.

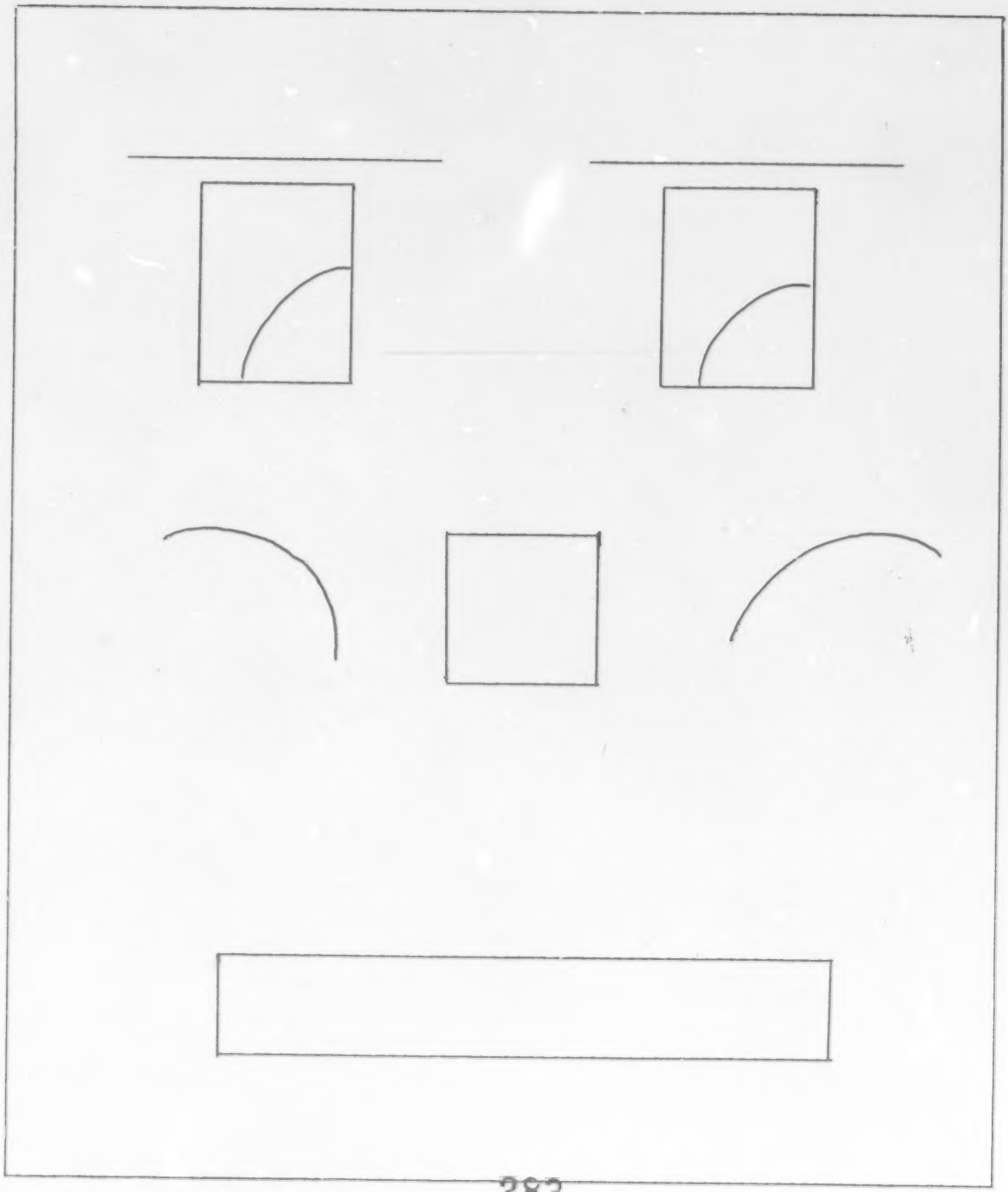
Draw a circle around the word or words naming the equipment



(10 - Ten terms used in describing parts of the sewing machine are listed)
spool pin, needle clamp, thread guide, handwheel, drop feed, needle plate, stitch length regulator, presser foot, light switch, bobbin case.

Appendix 4.8-15

PRACTICE PATTERN



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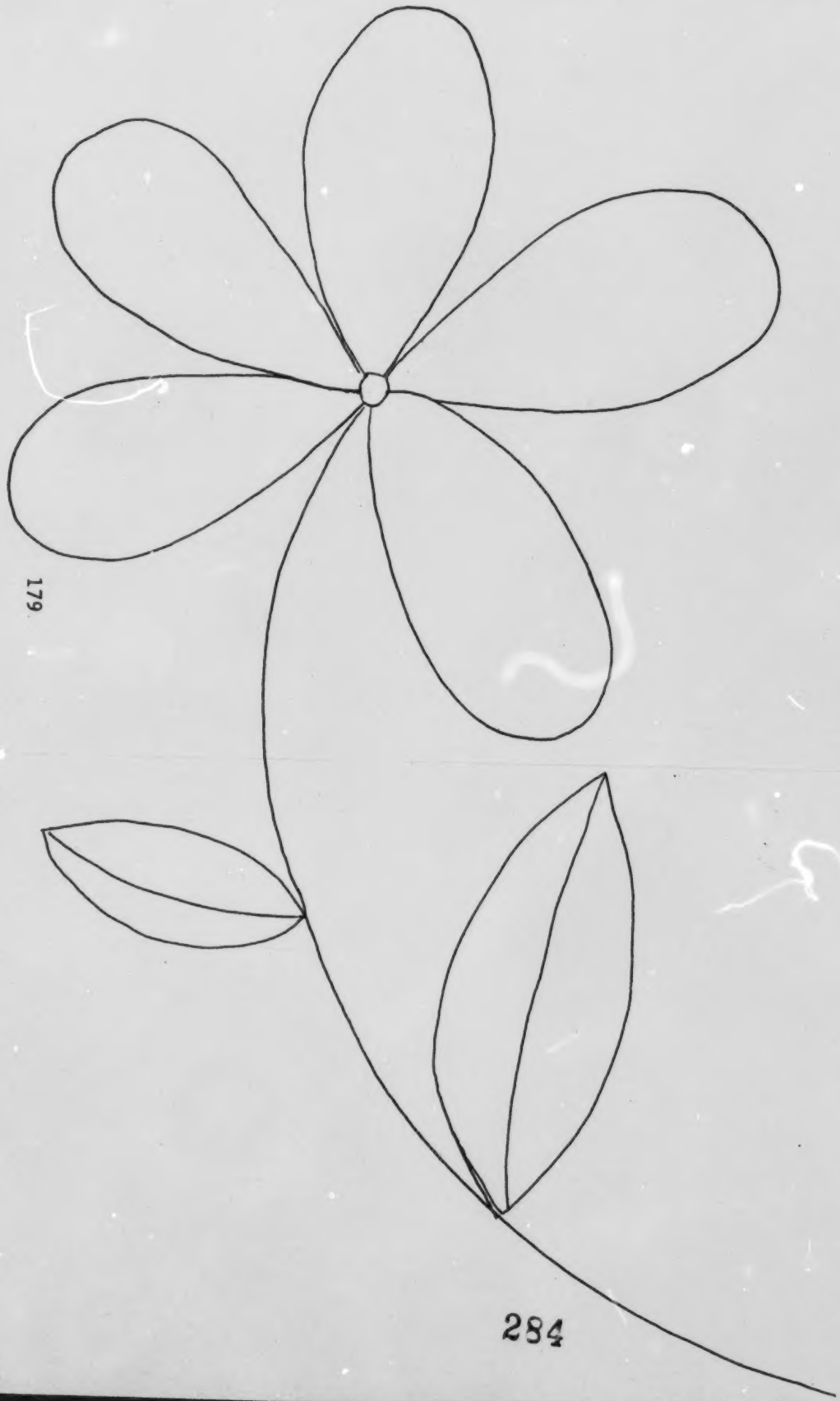
Appendix 4.8-16

PRACTICE PATTERN



Appendix 4.8-17

PRACTICE PATTERN

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EXTRA LEARNING OPPORTUNITIES

If you are interested in further study of the sewing machine, do one or more of the following activities or suggest an activity to your teacher for approval:

1. Read the following:

   Bernina Guide Book
   Page 51 How To Avoid Breakdowns
   Page 52-54 Cleaning and Oiling The Machine

   A. See teacher to apply for a Maintenance License. Application will include a demonstration test on cleaning and oiling the Bernina Machine. Upon receiving the Maintenance License, this will entitle you to clean, oil and help determine any problems that may arise with machines.

   OR YOU MAY CHOOSE TO DO 1-B

   B. Make a report (oral or written) concerning repairs, common breakdowns, cleaning and oiling the sewing machine.

2. Interview A Sewing Machine Sales Representative

   Report (oral or written) on career opportunities in this area. Investigate salary possibilities, requirements for this type of position, educational background needed, and any advantages or disadvantages concerning the job possibilities in this area.

3. Read the following:

   Bernina Guide Book
   Page 50 Monograms
   Page 42-43 Applique Work
   Page 44-45 Satin Stitch Embroidery

   Turn in sample involving one of the above areas.

4. Prepare a bulletin board having to do with the sewing machine or suggest a bulletin board idea to the teacher for approval.

5. Interview A Professional Seamstress

   Report (oral or written) on career possibilities as a professional seamstress. Investigate salary possibilities, requirements for position in this area, educational background needed, advantages and disadvantages of a job position in this field.

6. Prepare or develop a game that could be used with this learning package. Include rules and/or special instructions, prepare any special equipment needed for game and put in box or envelope along with rules and/or game instructions. Turn into teacher after trying game out on class or small sample group.

7. Investigate Different Brands of Sewing Machines

   Report (oral or written) on at least ten (10) different brands of sewing machines found on the market. Include approximate retail price, brand name, where machine can be purchased, and advantages or disadvantages of the machine. You may do this through research from Consumer Report Magazine (check in school library for old issue) or you may wish to visit sewing machine outlets, department stores, etc.

8. Visit A Clothing Factory

   Report (oral or written) on one of the following:

   A. Career possibilities in this field including salary possibilities, requirements, educational background needed, advantages and disadvantages, etc.

   B. The basic principles involved in a clothing factory and different techniques used in the assembly line, etc.

SEWING MACHINE POST-TEST

NAME _____

POST-TEST INSTRUCTIONS: PERIOD _____

Purpose of the post-test is for the student to find out if he can operate a sewing machine correctly and identify parts of the machine. If the student thinks he knows the principles of operating a sewing machine and has completed this post-test with a score of 80% correct or better, then he has completed this learning package successfully.

EQUIPMENT NEEDED BEFORE YOU BEGIN TEST:

Sewing Machine	Sewing Machine Needle
Pencil or Pen	Bobbin/Bobbin Case
Spool of Thread (any color)	Scrap of Fabric
Scissors	Straight Pins

* *

_____(20) 1. Name the parts of the machine and with a pencil line show how to thread the machine and the path for winding the bobbin. Use attached sheet with sewing machine illustration to answer questions.

_____(10) 2. Thread the machine properly, place bobbin in and bring up the thread from the bottom, have it checked by the teacher who will initial question after checking.

_____(15) 3. Using a scrap of fabric, cut out the square pattern attached and sew, using the directions on the pattern.

_____(15) 4. Using a scrap of fabric, cut out the round pattern attached and sew, using the directions on the pattern.

_____(2) 5. Give the rule for replacing the needle in a machine. _____

_____

_____(1) 6. There are _____ stitches per inch for a standard stitch length.

_____(1) 7. There are _____ stitches per inch for a basting stitch length.

_____(1) 8. Put name on this paper, pin or staple square sample first then round sample to the back of this sheet. You need not turn in paper patterns, only fabric samples.

_____(65) TOTAL POSSIBLE POINTS

NOTICE: Students must pass this test with 80% correct.
100% = 65, 90% = 58, 80% = 51 points.
Those receiving BELOW 51 points must review the learning experiences in this package and retake test.

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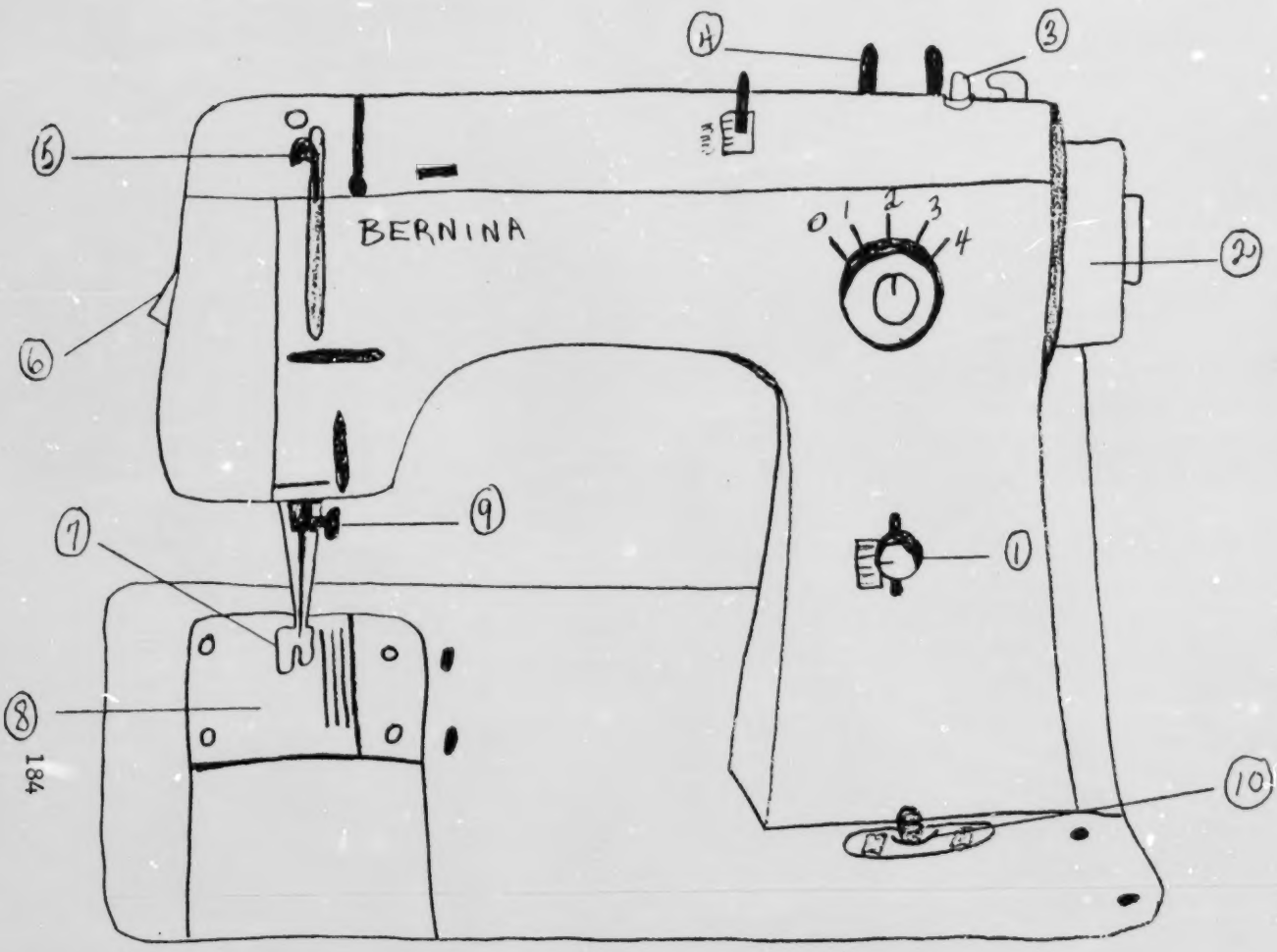
Sewing Machine Post Test Continued Name _____



A. With pencil line, show path for upper threading on the machine illustrated above.

B. With pencil line, show path for winding bobbin on the machine illustrated above.

C. Name the numbered parts on the sewing machine illustrated above, in space provided.

1. _____ 6. _____

2. _____ 7. _____

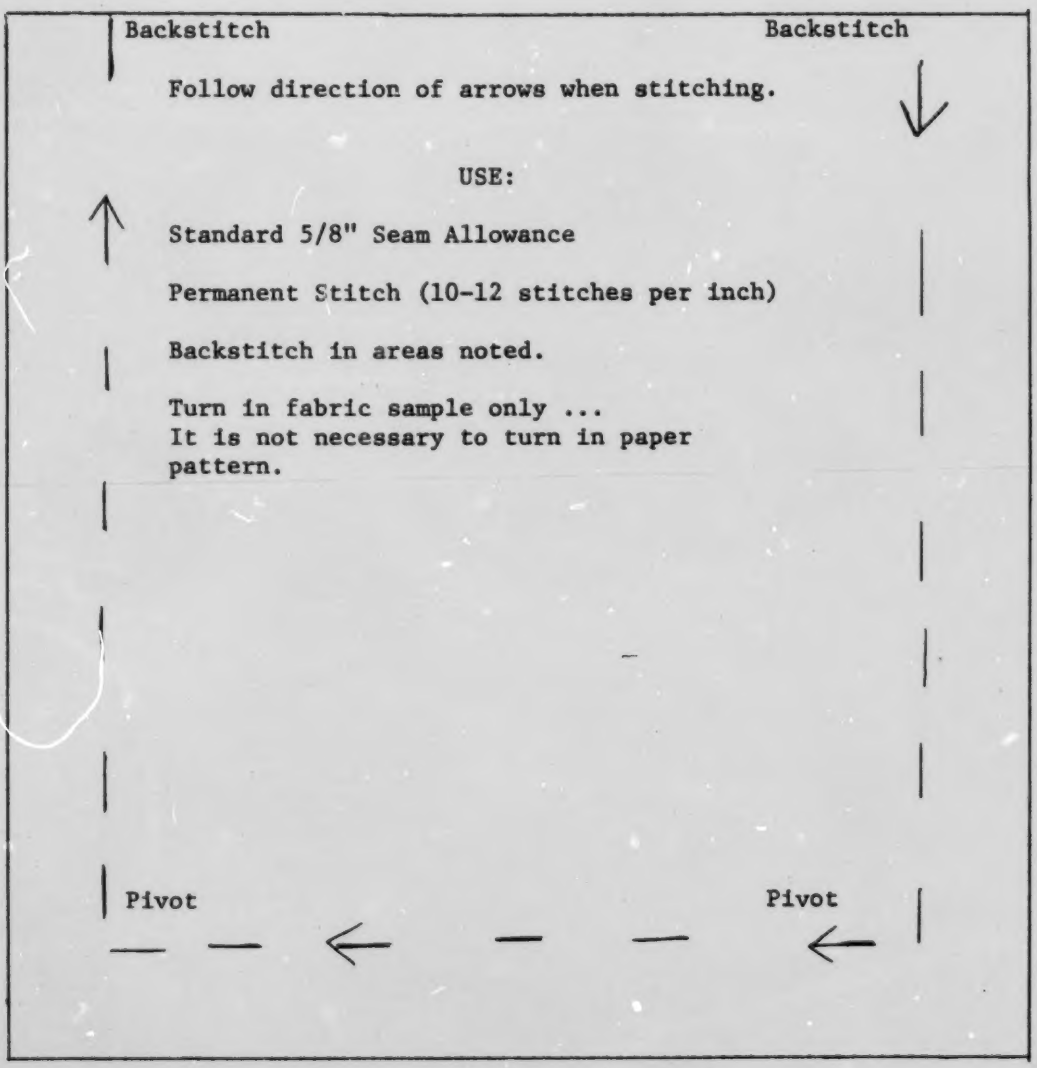
3. _____ 8. _____

4. _____ 9. _____

5. _____ 10. _____

Appendix 4.8-22

POST-TEST



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Appendix 4.8-23

POST-TEST

Begin and End in the same place.
USE:
Standard 5/8" seam allowance, following proper guide on needle plate.
Permanent Stitch (10-12 stitches per inch)
Turn in fabric sample only ...
It is not necessary to turn in paper pattern.

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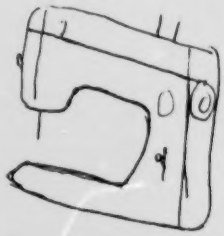
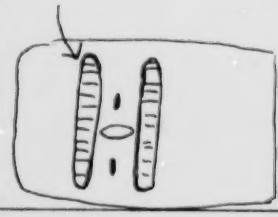
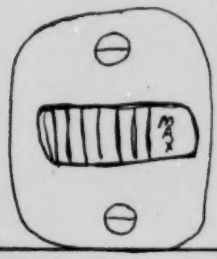
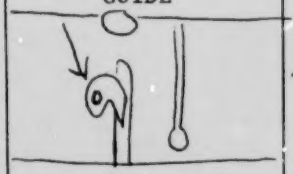
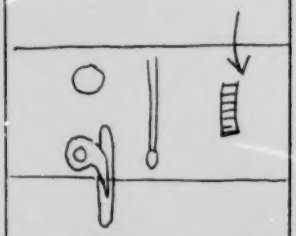
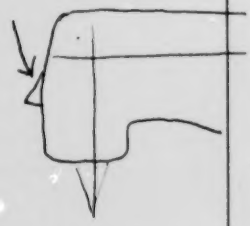
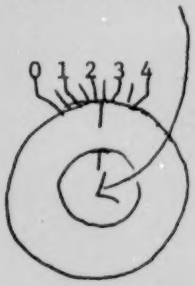
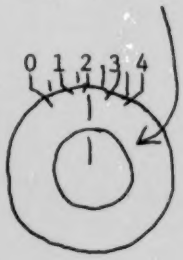
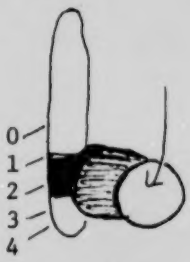
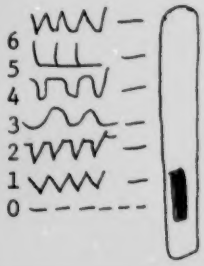
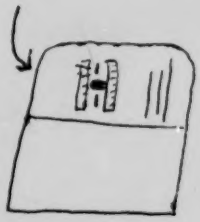
SPOOL PIN	NEEDLE THREAD FRONT TO BACK	ZIPPER FOOT	HEAD 	FEED DOG 
SPEED CONTROL 	THREAD GUIDE 	TENSION CONTROL 	LIGHT SWITCH 	CONTROL FOR CHANGING FEET
FEED DOG CONTROL	BOBBIN	FREE	BOBBIN SPOOL PIN	THREAD
NEEDLE POSITION KNOB 	ZIG ZAG WIDTH CONTROL 	STITCH LENGTH REGULATOR 	ZIG ZAG DESIGN 	PRESSER FOOT
HANDWHEEL	BOBBIN CASE	NEEDLE PLATE 	FOOT PEDDLE	NEEDLE SCREW

SEWING MACHINE TESTS - Receive license when all tests are completed and passed

NAME _____

PERIOD _____

_____1. STITCHING TEST - 50 points (Sew on paper with lines without thread)

_____2. PARTS TEST - 30 points (Written exam)

_____3. THREADING TEST - 30 points (to be done in front of teacher)

_____bobbin filled correctly
_____machine threaded correctly
_____bobbin in case and thread brought up correctly

_____4. SAMPLE TEST - 50 points
Directions:

a. Cut 3 pieces of fabric 3 x 6 inches on the straight of the fabric and 2 pieces 4 inches square on the straight of the grain. Samples should be woven material.
b. With right sides together, join two 3 x 6 inch pieces of material with a 5/8 inch seam on one of the 6 inch edges. On the opposite side stitch the seam 1/4 inch. Use a regular stitch and reinforce ends on the machine. 10 points
c. With right side together join the two 4 inch squares by sewing with a 1/4 inch seam. Leave a small space open in middle of one of the 4 inch edges. Turn to right side by pushing through open side. Turn corners to be pointed. Stuff with cotton, yarn, or scrap material. Fold in unsewn edges and blind stitch. Use as a pin cushion. 10 points for turning corners correctly. 10 points for finished pin cushion.
d. Using a single piece of fabric baste one of the 6 inch edges leaving 3 inch threads at both ends. Baste at 3/8 inch and 5/8 inch. Gather material by using the threads on the under side and pulling. Pull from both ends until sample measures 3 inches. Secure threads around pins on each end. Clean finish the edge away from gathers by turning under 1/4 inch using the presser foot as a guide. Use regular stitch and reinforce ends. 10 points

The teacher can give the student a license, as one below, when the above items are completed. The license can be printed like a business card (School Business Department or Print Shop may do it).

SEWING MACHINE OPERATOR'S LICENSE

_____

on _____ has successfully completed all sewing machine tests at _____ school and is fully qualified to operate a sewing machine.

Examiner

SEWING MACHINE SHOPPING CHECKLIST

List manufacturer and model number in vertical columns; as you shop, check off the features on the models which interest you most.														
FEATURES														
Machine Style: Flat Bed or Open Arm							Light Over Needle Area							
Controls Accessible (In seated Position)							Built in Cams Interchangeable Cams							
Needle Positions: Twin 3 Position Slant							Performance on Multiple Layers Jersey or Tricot Leather							
Hinged Presser Foot							Built in Buttonholer							
Snap on Feet							Adjustable Tension							
Foot Control and/or Knee Control							Automatic Tension/Pressure							
Dual Speed							Adjustable Reverse							
Carrying Case							Instruction Book Reading Ease							
Weight (In Pounds)							Guarantee (In Years)							
Calibrated Needle Plate							Portable or Console							
Zigzag Needle Plate							U.L. Rating							
Automatic Bobbin Winder							Zigzag Stitches							
Ease of Threading							Stretch Stitches							
Non-Thread Jamming Bobbin							Ease of Lubrication and Cleaning							
Built-in Bobbin Extractor							Stitch Regulator Dial							
							Thread Cutter							

Appendix 4.9A – 2

Appendix 4.9B

NAME _____

PERIOD _____

Regular Stitch - Backstitch on ends

1. _____
2. _____
3. _____
4. _____
5. _____

Basting Stitch

1. _____
2. _____
3. _____
4. _____
5. _____

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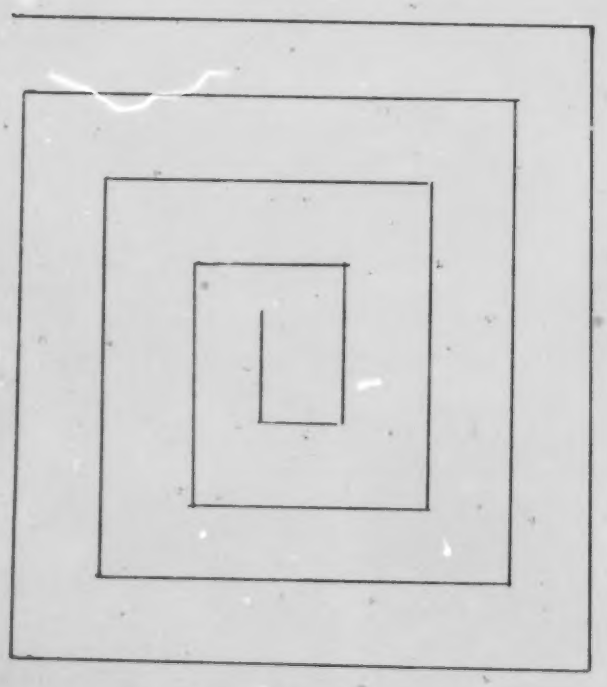
_____

Regular Stitch - Turn corner



Regular Stitch - Circle

Topical Outline

5.0 Construction Competencies

- 5.1 Pattern Interpretation
- 5.2 Pattern Fitting
- 5.3 Pattern Alterations
- 5.4 Fabric Preparation
- 5.5 Pattern Layout
- 5.6 Cutting
- 5.7 Transferring Pattern Markings
- 5.8 Stabilizing
- 5.9 Shaping and Molding
- 5.10 Seams and Seam Finishes
- 5.11 Joining Fabric Pieces
- 5.12 Trimming, Clipping, and Understitching
- 5.13 Fasteners and Closures
- 5.14 Hems
- 5.15 Hand and Machine Stitches
- 5.16 Pressing

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5.0 Construction Competencies
5.1 Pattern Interpretation
5.2 Pattern Fitting

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 5.1 Interprets and uses pattern envelopes, guide sheet and pattern symbols. (BEGINNING COMPETENCY)	5.1 A student completes "Pattern Envelope and Guide Sheet". (Appendix 5.1A)
	NOTE TO TEACHER: To complete learning activities on pattern guide sheet a classroom set of guide sheets which are all alike may be secured by writing directly to a major pattern company.
LEVEL II Interprets and uses guide sheet directions for collars, sleeves and cuffs. (BEGINNING COMPETENCY)	Each student completes a pre-test on "Pattern Symbols". (Appendix 5.1B)
LEVEL III Interprets and analyzes tailoring and/or couture processes found on the guide sheet. (BEGINNING COMPETENCY)	Students in a small group play "Pattern Terminology Game". (Appendix 5.1C)
	NOTE TO TEACHER: Prepare a bulletin board showing a pattern and pattern symbols (Appendix 5.1D).
LEVEL I 5.2 Demonstrates the use of pattern measurements and pieces to determine fit of pattern. (BEGINNING COMPETENCY)	5.2 NOTE TO TEACHER: Information on amounts of ease necessary on pattern should be provided students. Reference: Clothing for Moderns, page 123.
Analyzes pattern variations due to allowances in ease and design. (BEGINNING COMPETENCY)	Each student measures pattern at bust, waist and hips and compares with his/her measurements. Student answers the following questions: -Is sufficient ease allowed? -Does my pattern need to be made larger or smaller?
LEVEL II Checks pattern fit of sleeves, collar and cuffs and identifies necessary alterations. (BEGINNING COMPETENCY)	NOTE TO TEACHER: Teacher or a student demonstrates pinning and fitting of paper pattern including trimming of excess margins as needed. For further information see Smart Sewing, page 50.
LEVEL III Checks pattern fit of couture and tailored designs and identifies necessary alterations. (BEGINNING COMPETENCY)	Each student pins pattern pieces together, tries on, and with teacher guidance notes fit: -Bust/chest -Bust darts (female) -Waist -Bodice/shirt length and/or garment length -Hips (female)

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.1 Each student completes worksheet, "The Pattern Guide", by using his/her pattern guide sheet. (Appendix 5.1E)	5.1 NOTE TO TEACHER: Show and explain samples of tailoring techniques. Each student prepares samples of tailoring techniques found on his/her pattern guide sheet and demonstrates one technique to class. Each student examines the construction processes used in commercially tailored clothes. Garments are selected from a wide price range. Each student compares all of the construction processes such as lapel areas, interfacing, seams and hem allowances, machine and hand stitches, bound buttonholes, grain direction, ease allowance and closures.
5.2 Each student takes measurements of a garment which fits well and compares these measurements with those of his/her pattern. Each student develops criteria for proper fit of a garment, identifies steps in solving a fitting problem with emphasis on sleeves, collar and cuffs, and identifies necessary alterations for his/her pattern.	5.2 See Activity 5.3 for a sequence of experiences.

5.3 Pattern Alterations
5.4 Fabric Preparation

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I .3 Demonstrates alteration processes for lengthening and shortening and adjusting width in seam allowances. (BEGINNING COMPETENCY) LEVEL II Demonstrates adjustments of more than 2" in width and length for darts, ease and seams. (BEGINNING COMPETENCY) LEVEL III Demonstrates and analyzes major pattern alterations. Demonstrates ability to modify a pattern silhouette and internal decorative and/or functional design lines appropriate for fabric. (BEGINNING COMPETENCY)	5.3 With teacher guidance student makes necessary pattern alterations in length and width.
LEVEL I .4 Demonstrates ability to prepare non-directional plain and print fabrics, knits and wovens for layout. (BEGINNING COMPETENCY) LEVEL II Demonstrates ability to prepare plaids, directional prints and napped fabrics for layout. (BEGINNING COMPETENCY) LEVEL III Demonstrates ability to prepare specialty fabrics such as wool, leather, furs, etc., for layout. (BEGINNING COMPETENCY)	5.4 NOTE TO TEACHER: Use transparency showing grain in wood, plants and design (on and off grain examples) then proceed to demonstrating grain in fabric. Each student views examples of fabrics and outfits which are off-grain. Teacher or a student leads discussion on pre-shrinking fabric and notions. Each student completes "Prepare Your Woven Fabric". (Appendix 5.4)

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.3 Each student completes "Altering A Pattern". (Appendix 5.3) After completing activities, the student alters his/her pattern.	5.3 A student may use one-half scale size patterns or patterns for an individual with a special figure problem to develop samples of pattern alterations. Suggestions for alterations: -Change dart placement -Relocate waistline -Enlarge hip area -Enlarge sleeve area -Enlarge bust area -Lengthen sleeve, shirt, pants, flared skirt -Taper shirt -Increase or decrease waistline circumference Student selects design appropriate for chosen fabric with internal decorative and/or functional design lines from magazine or catalog or creates own design, selects pattern which most closely corresponds to design and modifies pattern (internal and decorative and/or functional design lines) to produce pattern for selected design and fabric. Student makes correct alterations for his/her pattern and constructs a muslin shell for in-depth alteration study.
5.4 Each student, individually or in a group, views filmstrips by McCall's on plaids. NOTE TO TEACHER: Samples of balanced and unbalanced plaids and directional designs relevant to filmstrips should be provided. Each student compares the effect of light reflection by viewing napped fabrics turned in opposite directions.	5.4 NOTE TO TEACHER: Suggested references: "Vogue Everything About Sewing Series" and Coats and Clark pamphlets. Each student researches specialty fabrics (e.g., leather and leather-like fabrics, fur and fur-like fabrics, lace, velvet and beaded fabrics) as to preparation for cutting. Student reports findings to class. Teacher leads discussion on importance of proper preshrinking methods of wool and other tailoring fabrics for students at this competency level.

5.5 Pattern Layout
5.6 Cutting

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 5 Demonstrates correct procedure for pattern layout and attachment according to pattern guide on non-directional, plain, print, woven and knit fabrics. (BEGINNING COMPETENCY) LEVEL II Demonstrates correct procedure for pattern layout and attachment on plaids, napped and directional fabrics. (BEGINNING COMPETENCY) Demonstrates ability to adjust layout for altered pattern. (Cross reference 2.6) (BEGINNING COMPETENCY) LEVEL III Demonstrates correct procedure for pattern layout and attachment on specialty fabrics. (BEGINNING COMPETENCY)	5.5 Students complete Pattern Layout activities. (Appendix 5.5) Each student lays out his/her pattern on fabric.
LEVEL I .6 Demonstrates ability to cut pattern from fabric with hand or electric shears. (BEGINNING COMPETENCY) LEVEL III Demonstrates ability to use a variety of tools in cutting specialty fabrics. (BEGINNING COMPETENCY) Demonstrates ability to cut multiple layers of fabric. (BEGINNING COMPETENCY)	5.6 Teacher or student demonstrates cutting skills, emphasizing accuracy. Students perform cutting skills on samples or project.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.5 Each student does comparison shopping of different quality garments made from napped, directional, striped and plaid fabrics. Students report findings (e.g., matching of plaids) with group at this competency level. Each student views several ready-made garments of plaids and stripes which are matched and unmatched. Each student analyzes the reasons why the plaids or stripes did or did not match. Teacher or student demonstrations for students at this competency level are given on pattern layout and cutting when using plaid, striped, napped and/or directional fabrics. Student indicates variance from guide sheet layout. Teacher leads discussion or demonstrates steps for adjusting layouts for altered patterns. Student indicates layout changes, if necessary for his/her altered pattern. Students use a half-size scaled pattern or child's pattern to construct a garment of a plaid, napped or directional fabric if he/she does not wish to make a garment for him/herself of these fabrics. Students summarize the experience indicating the extra amount of fabric needed for the garment.	5.5 Each student experiments with ways to attach patterns to non-woven and special surface finish fabrics such as leather, fur, and synthetics. Findings (e.g., pin marks will be permanent in some non-woven fabrics and leathers, therefore, a spray adhesive may be recommended) are summarized.
5.6 (Not taught here)	5.6 Each student experiments with a variety of cutting methods on specialty fabrics. Students compare using a single edge safety razor blade, electric scissors and hand shears for cutting long pile fabric, cut from both the top and underside of the fabric, make recommendations for cutting specialty fabrics and explain why one method and/or tool is recommended over the other.

5.7 Transferring Pattern Markings
5.8 Stabilizing

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I .7 Transfers pattern markings to material according to pattern directions, type and color of fabric using one of the following methods: tracing wheel and carbon, pencil, tackit and carbon, chalk or magic transparent tape. (CROSS REFERENCE 4.5) (BEGINNING COMPETENCY)	5.7 Teacher or a student demonstrates transferring pattern markings. Students complete "Marking With Tracing Paper". (Appendix 5.7A)
LEVEL II Identifies and demonstrates use of all marking methods listed in Level I, pins, tailor tacks and notching. Students analyze use of marking methods according to fabric type and color. (BEGINNING COMPETENCY) (DECISION MAKING)	
LEVEL III Demonstrates use of slashing and multiple layer methods in transferring pattern markings on appropriate fabric. (BEGINNING COMPETENCY)	
LEVEL I .8 Demonstrates use of staystitching. (BEGINNING COMPETENCY)	5.8 Teacher leads discussion on staystitching which includes purpose of staystitching seams. Each student completes "Staystitching". (Appendix 5.8)
LEVEL II Analyzes and demonstrates use of stitching and tape reinforcement. (DECISION MAKING)	
LEVEL III Analyzes and demonstrates use of fabric reinforcement in tailoring and with specialty fabrics. (DECISION MAKING)	

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.7 Teacher or a student demonstrates for students at this competency level the use of tailor's tacks on coarse-textured, resilient and/or transparent fabrics, pins and notches. Students try marking methods by completing "Marking With Tailor Tacks". (Appendix 5.7B) Teacher or a student demonstrates the use of marking with pins. Students complete "Mark With Pins". (Appendix 5.7C) Student completes self test, "Transferring Pattern Markings". (Appendix 5.7D)	5.7 Teacher explains methods for transferring pattern markings when a. lining a tailored garment, b. underlining a tailored garment to students at this competency level. On a shopping trip, the student observes commercially-made garments and checks methods of commercially marked darts. Students at this competency level take a field trip to a made-to-order shop (for example bridal, men's suits, or designer's) and observe the method or methods which could be used in constructing their own garments. Each student tries a variety of methods for transferring pattern markings and pattern information to specialty fabrics such as non-woven, tricot and stretch fabrics and wool and wool-like fabrics. Suggested methods: -Magic tape -Notches -Tailor's tacks -Tracing wheel and carbon Each student makes recommendations for marking these fabrics.
5.8 Teacher demonstrates methods of seam reinforcement (e.g., stay tapes, top stitching) to students at this competency level.	5.8 Each student researches fabric reinforcement for tailored and specialty fabrics (e.g., tapes, underlinings, interlining, lining, etc.). Each student identifies needs for construction of his/her garment.

5.9 Shaping and Molding
5.10 Seams and Seam Finishes

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I .9 Illustrates and understands the use of tucks, darts, ease, gathering and interfacing. (BEGINNING COMPETENCY) Illustrates the use of interfacing and fusing two pieces of fabric together. (BEGINNING COMPETENCY) LEVEL II Demonstrates and understands how to attach interfacing and/or underlining (backing). (BEGINNING COMPETENCY) LEVEL III Analyzes and uses shaping materials and equipment for tailoring and specialty fabrics by cutting, stitching and/or pressing. (BEGINNING COMPETENCY)	5.9 Teacher or a student demonstrates tucks and methods of easing including pressing techniques. Teacher or a student introduces interfacings and demonstrates use in collarless neckline. Student completes "Darts". (Appendix 5.9A) Student completes "Gathers". (Appendix 5.9B)
LEVEL I .10 Demonstrates pinning and stitching of two straight pieces of fabric. (BEGINNING COMPETENCY) Understands and uses zig zag (3 step, serpentine), edge stitch on flat or turned edge and/or pinked seam finish. (BEGINNING COMPETENCY) LEVEL II Illustrates French and flat fell seam finishes. (BEGINNING COMPETENCY) LEVEL III Analyzes and uses Hong Kong and bound seam finishes. (BEGINNING COMPETENCY)	5.10 Teacher demonstrates and encourages students to pin baste and to sight edge a variety of seam widths, such as 1/4", 1/2" and 5/8". Each student completes "Plain Seams and Seam Finishes". (Appendix 5.10A)

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.9 NOTE TO TEACHER: Prepare a chart with samples, information and step-by-step instructions for attaching interfacing and/or underlining to garment and/or garment pieces. Each student studies chart and completes an oral quiz with 100% accuracy and successfully interfaces his/her garment.	5.9 Teacher demonstrates hand sewing and cutting techniques used to shape tailored and specialty fabrics (e.g., padding stitch, slashing) for students at this competency level. (CROSS REFERENCE WITH 4.7)
5.10 NOTE TO TEACHER: Prepare a chart with samples, information and step-by-step instructions for French and flat fell seam finishes. Each student studies chart and completes oral quiz with 100% accuracy and successfully constructs seams on his/her garment.	5.10 Each student looks at garment with Hong Kong and bound seam finishes (ready-made or home-constructed) and determines how these seam finishes are constructed. Student then makes samples of these finishes on specialty fabrics such as brocade, velvet and wool and determines appropriateness and durability for type of fabric and garment.

5.11 Joining Fabric Pieces
5.12 Trimming, Clipping and Understitching

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 11 Demonstrates joining similar shapes (straight or curved) which are equal and/or unequal in length (shoulders). (BEGINNING COMPETENCY)	5.11 Cross reference with: -5.9 (ease) -5.10 (plain seam)
LEVEL II Understands and demonstrates joining two pieces of unlike curves and shapes and different variety of grain direction (bias and straight). (BEGINNING COMPETENCY)	NOTE TO TEACHER: Teacher emphasizes matching stitching lines rather than cut edges (shoulders).
Demonstrates joining patterned fabrics. (BEGINNING COMPETENCY)	
LEVEL III Understands and demonstrates ability to join unlike and specialty fabrics. (BEGINNING COMPETENCY)	
LEVEL I 12 Understands and demonstrates the ability to trim, layer (grade), clip, notch, understitch and tack appropriate seams. (BEGINNING COMPETENCY)	5.12 Each student completes "Curved Seams".

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.11 Teacher or student demonstrations are presented on joining curved seams (convex and concave fabric pieces) so surfaces are smooth and even for both open and encased seams such as found in a sleeve or an attached collar. Student joins sleeve and collar to his/her garment or constructs sample. Each student cuts and joins bias strips from plain and plaid fabrics and attaches to a curved edge. Student states why bias is needed for a curved edge. The bias strips may be used for closure loops and belts. Teacher demonstrates joining plaid seams - 1) pin basting, 2) hand basting, 3) combination of both - to students at this competency level.	5.11 Student researches methods (appropriate for his/her projects) of joining specialty fabrics (e.g., ultra suede) and constructs his/her garment using new learnings.
5.12 (Not taught here)	5.12 (Not taught here)

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I 5.13 Demonstrates ability to correctly attach snaps, hooks and eyes and decorative buttons. (BEGINNING COMPETENCY) Demonstrates skills necessary for zipper insertion. (BEGINNING COMPETENCY) LEVEL II Selects and uses appropriate button and buttonhole. (BEGINNING COMPETENCY) LEVEL III Correctly attaches covered snaps, hooks and eyes. (BEGINNING COMPETENCY) Correctly demonstrates bound and decorative button holes. (BEGINNING COMPETENCY) Analyzes and uses appropriate decorative fasteners. (DECISION MAKING) Correctly inserts zipper using slash and hand picked method. (BEGINNING COMPETENCY)	5.13 After using resource materials or viewing teacher or student demonstration(s) each student applies a snap, hook and eye and button. After consulting resources such as filmloops, transparencies and/or step by step illustrative examples, each student inserts a zipper.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.13 Teacher demonstrates machine-made buttonholes using attachment, built-in buttonholer and/or zig zag using a variety of fabrics.	5.13 Each student covers snaps with two different kinds of fabric. One fabric may be a lightweight crepe; another a plain woven muslin. Each student compares the effects of the use of different fabrics.
NOTE TO TEACHER: A machine(s) with a buttonhole attachment is made available so students at this competency level can practice making buttonholes. Students study instruction booklets and make buttonholes on machines which do not need separate attachments.	Each student covers a large hook by using hand buttonhole stitches. Comparison of thread kinds and sizes may be made (e.g., buttonhole twist, heavy duty and 100% polyester). Each student compares time and ease of handling thread kinds and sizes.
	Teacher demonstrates for those at this competency level at least three methods for making bound buttonholes. Suggested: strip; window pane; and Dritz buttonhole maker. The teacher emphasizes the use of appropriate fabrics and interfacings for making the buttonholes.
	Each student experiments making bound buttonholes using a firmly woven and flimsy fabric, employing two different methods on each fabric. Results are evaluated to determine appropriateness of fabric type and ease of construction.
	Each student researches methods of making decorative buttonholes in specialty fabrics and demonstrates techniques to group of students at this competency level.
	Each student visits department store or specialty shops noting decorative fasteners on ready-made clothing and shares findings with students at this competency level.
	Teacher demonstrates slash and hand picked methods of inserting zipper. Student inserts zippers using each method in a sample or on his/her project.

5.14 Hems
5.15 Hand and Machine Stitches
5.16 Pressing

COMPETENCIES	LEVEL I ACTIVITIES
LEVEL I .14 Demonstrates ability to prepare garment for straight or curved hems. (BEGINNING COMPETENCY) LEVEL III Demonstrates and understands use of decorative hems and specialty fabric hems. (BEGINNING COMPETENCY)	5.14 NOTE TO TEACHER: Prepare a chart with samples, information and step-by-step instructions on preparing hem of garment. Each student studies chart showing step-by-step method and samples for preparing hem for hand or machine stitching. Each student prepares his/her project or sample for hemming.
LEVEL I .15 Demonstrates ability to complete hems by appropriate hand and machine stitches. (BEGINNING COMPETENCY) LEVEL III Analyzes and uses decorative and tailoring stitches. (DECISION MAKING)	5.15 NOTE TO TEACHER: Prepare a chart with samples, information and step-by-step instructions on appropriate stitches. Each student hems his/her garment or sample using appropriate hemming stitch.
LEVEL I .16 Understands and illustrates pressing of straight seams, functional design seams and curved seams. (BEGINNING COMPETENCY) LEVEL II Demonstrates pressing of uneven seams. (BEGINNING COMPETENCY) LEVEL III Demonstrates pressing of specialty fabrics. (BEGINNING COMPETENCY)	5.16 CROSS REFERENCE WITH 4.7 and 5.9.

LEVEL II ACTIVITIES	LEVEL III ACTIVITIES
5.14 (Not taught here)	5.14 Each student experiments by making decorative and specialty hems such as: -rolled, hand and machine -shell-edged, hand and machine -zig zag -top stitched -scalloped -glued Each student hems his/her garment using appropriate hemming stitch.
5.15 (Not taught here)	5.15 Each student makes samples of tailoring and decorative stitches and states where they will be used. Suggested stitches include: Tailoring: Tailor basting; Pad stitchings (cross reference 5.9); Catch (herringbone); Bar tack; French tack Decorative: Fagoting; Feather; Blanket; Arrowhead; Chain; Saddlestitch Each student uses appropriate stitches as needed in construction of garment.
5.16 CROSS REFERENCE WITH 4.7.	5.16 CROSS REFERENCE WITH 4.7.

Appendix 5.1A

PATTERN ENVELOPE AND GUIDE SHEET

Competency: Given a pattern guide sheet the student will be able to identify the pattern pieces, layout and construction processes necessary in constructing the project.

Resource: Pattern guide sheet

Activities: Complete as directed

1. Select a view from front of pattern envelope. (View ____)
2. Remove the guide sheet from the pattern envelope and write your name and class period on it.
3. Identify the pattern pieces belonging to the view you will be making. (Write letter or number here _____)
4. Go over the six main points on how to use your pattern on the first page of the guide sheet.
5. KNOW YOUR PROGRESS FROM START TO FINISH. Answer "yes" or "no." Does the guide sheet tell you ...

_____ A. to trim away paper margins?

_____ B. the meaning of EASE in a pattern?

_____ C. how to lengthen and shorten a pattern?

_____ D. how to identify pattern markings?

_____ E. to pre-shrink your fabric?

_____ F. that the shaded area in the picture is the wrong side?

_____ G. to fold fabric with right sides inside?

_____ H. to place pattern on WRONG side of fabric?

_____ I. to mark and sew your fabric?

_____ J. to stay-stitch?

_____ K. how to match notches?

_____ L. to stitch in directions of arrows on the pattern?

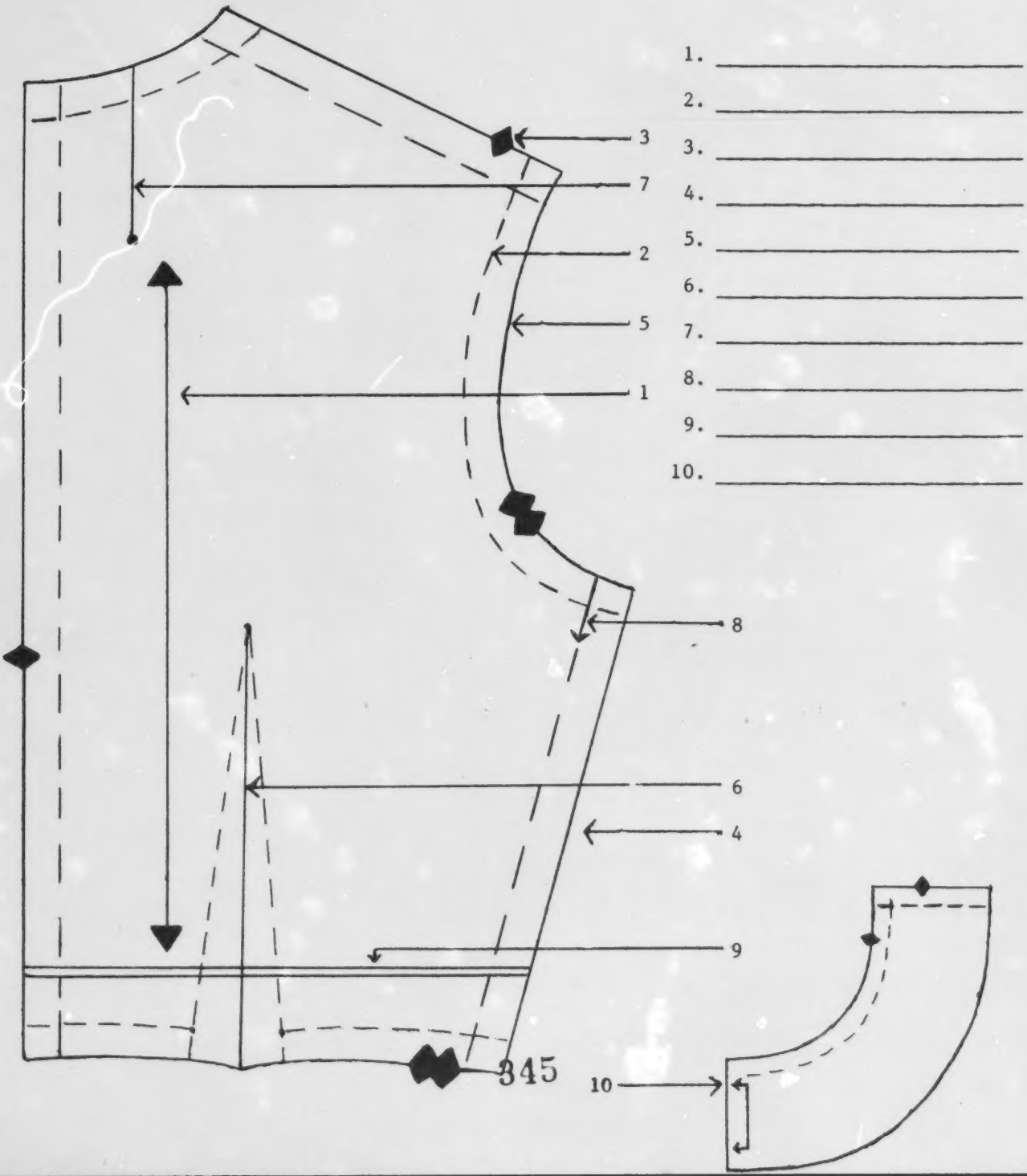
_____ M. where to go for extra help?

_____ N. width of seams to stitch?

Appendix 5.1B

PATTERN SYMBOLS

The numbered blanks on the right have a corresponding number on the diagram. Use pencil to write the meanings of the numbered symbols in the blank space provided for each. (Students and teacher make corrections on the study sheet for future reference.)



Appendix 5.1C

PATTERN TERMINOLOGY GAME

(Note to Teacher - This game can be adapted to meet student needs.)

This is a game that may be used in reviewing or evaluating. Terms listed below are related to what they mean when they are listed on a pattern envelope, on guide sheets, or other materials pertaining to patterns.

BASEBALL

Directions: Two teams, A and B, are selected by having students call off A, B, A, B around the room.
Team A is up to bat. Team B chooses a catcher and pitcher. Teacher is umpire. The pitcher pitches a question to the batter and the catcher. If the batter answers correctly first, s/he goes to first base. If the catcher answers correctly first, it is a strike against the batter. If batter and catcher tie, it is a ball.

Define the following words:

Selvage	Grade	Unit
Grain line	Tack	Yardage requirements
Straight of grain	Reinforce	Zipper indication
Against the grain	Dart	Notch
Bias	Curved dart	Guide
Nap	Tuck	Pattern pieces
Fold line	Seam allowance	Margin
Fabric fold	Body measurements	Slip-stitching
Fabric width	Pattern types	Ease
Interfacing	Alteration lines	Clip
Basting	Arrow	Blind stitch
Regular stitching	Bodice	Trim
Stay-stitching	Buttonholes	Gathering
Backstitching	Center front	Hem allowance
Understitching	Center back	
Directional stitching	Figure type	

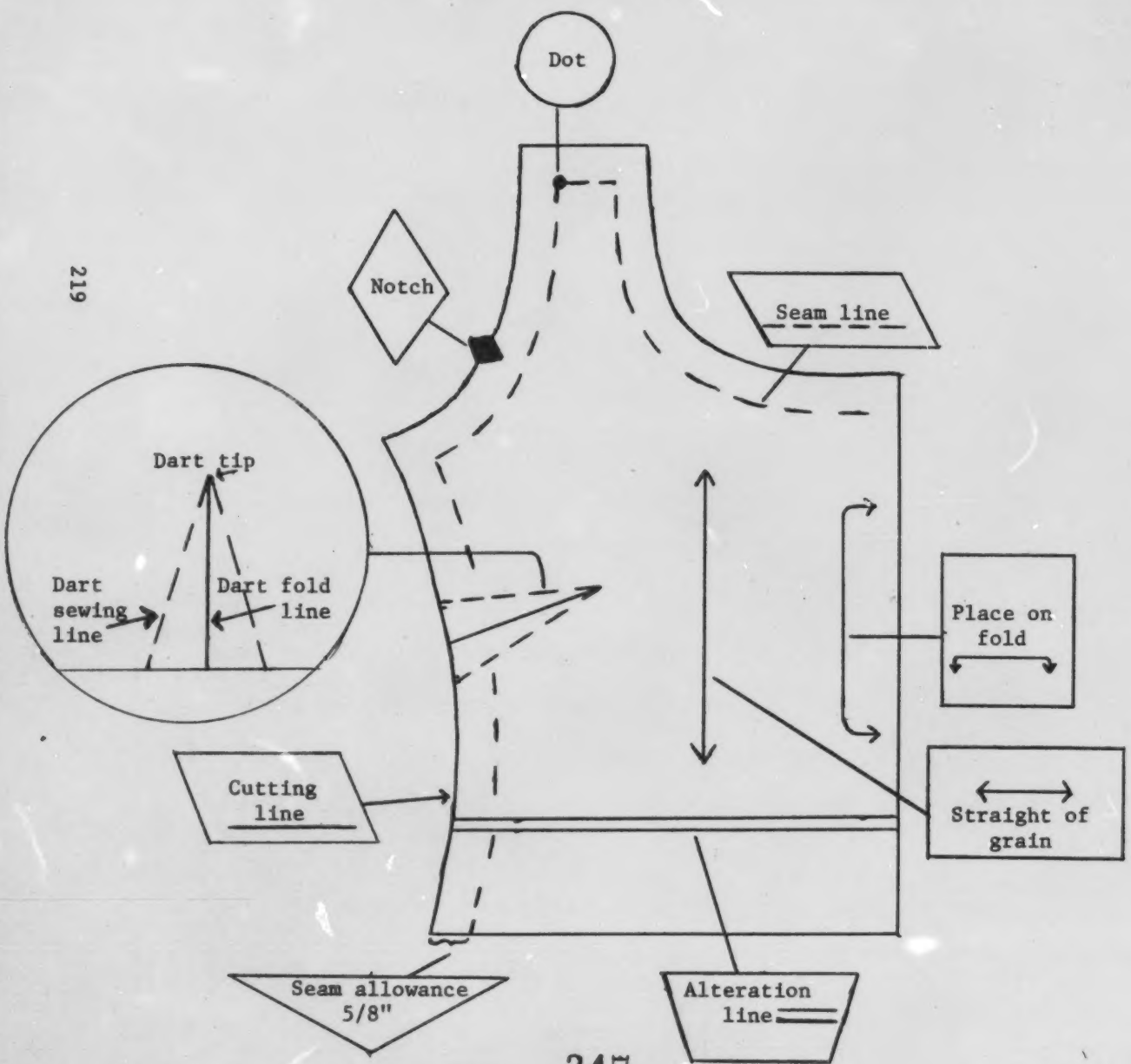
Appendix 5.1D

BULLETIN BOARD SUGGESTION

Pattern Symbols

Supplies Needed: Bodice Front Piece, names of symbols on various shapes of construction paper found on pattern pieces, and yarn to connect name to correct symbol.

WHAT DOES THIS ALL MEAN?



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Appendix 5.1E

THE PATTERN GUIDE
(worksheet)

After studying the guide sheet, answer the following questions:

1. COLLAR . . .

-- Is the collar in (a) one piece (b) two pieces?

-- If one piece, how many will you cut? _____

-- If two pieces, how many will you cut? _____

-- Is it interfaced? _____

-- Is it understitched? _____

-- What is meant by "under collar"? _____

_____

-- What is meant by "upper collar"? _____

_____

2. SLEEVE . . .

-- When is underarm seam stitched? _____

-- How is fullness in sleeve cap eased in? _____

_____

-- How is sleeve pinned into armhole? _____

_____

-- Does the pattern indicate that the sleeve should be reinforced at the underarm area? yes _____
no _____

If answer is yes, how should this be done? _____

_____

-- Should armhole seam be trimmed?
yes _____
no _____

-- Which direction should armhole seam be pressed? _____

_____

3. CUFFS . . .

-- Is the cuff shaped (flared) _____

or straight (flat) _____?

-- How many cuff pieces should you cut? _____

-- Are they interfaced? _____

-- Should cuff be made and attached to sleeve

_____ before setting into armhole?

_____ after setting into armhole?

-- Does the sleeve require a _____ faced placket or

_____ continuous bound placket

before cuff can be attached?

-- Do cuffs attach _____ with facing?

_____ without facing?

Appendix 5.3

ALTERING A PATTERN

Competency: Given a situation, a student should be able to alter a pattern to solve the problem.

Resources:
Sewing books from pattern companies
Textbooks
Pattern guide sheets
Teacher demonstration
Transparencies (Butterick, 3-M, and Nasco)

Activities:

1. Read at least 2 resources and/or observe teacher or student demonstration on alterations

2. On a separate sheet of paper (to be handed in) answer the following:

   A. What provisions are made on patterns for alterations?

   B. How would you raise or lower the position of a horizontal bust dart?

   C. How is width added or decreased on a pattern?

   D. Where is length added or subtracted from:
      a) skirt
      b) pants
      c) bodice patterns
      d) sleeve patterns

   E. (a) What is the purpose of ease?
      (b) Identify situations that might necessitate "ease" in excess of standard allowance.

   F. List the steps for measuring and checking the fit of a pattern.

Appendix 5.4-1

PREPARE YOUR WOVEN FABRIC
Berneice Gunn and Rita Allan

Competency: From various resources the student should be able to explain how grainline is related to design of fabric and to straighten woven fabric so it is on grain.

Resources: Carson, How You Look and Dress, Chapter 15
Simplicity Sewing Guides

Activities:

1. Complete the following on a separate sheet of paper.

   A. Define the following terms:
      -Grainline
      -Lengthwise grain
      -Crosswise grain
      -Selvage
      -Straighten ends of fabric
      -Straighten fabric grain
      -Torn edge
      -Diagonal of fabric
      -Pulling a thread

   B. How do you straighten any woven fabric before cutting?

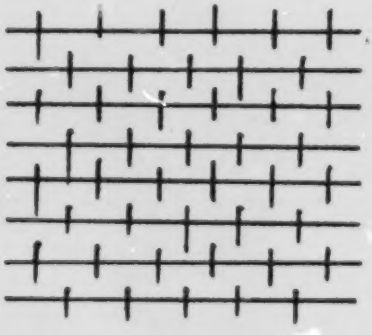
   C. Why is grainline important when sewing?

   D. Post-test: Straighten your fabric.

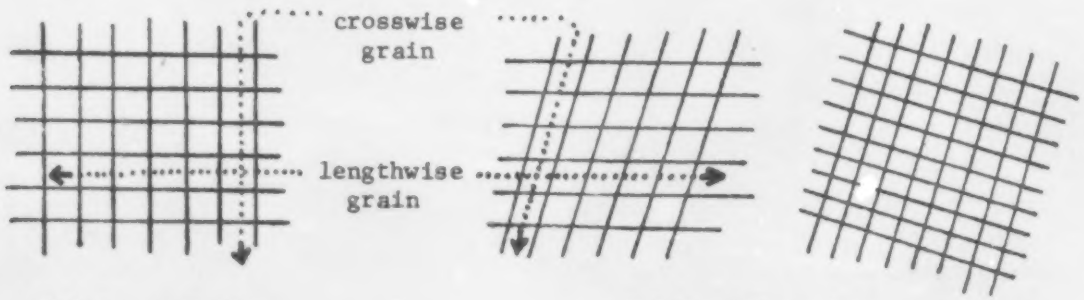
Grainline

The GRAIN is the LINE of lengthwise and crosswise threads that are woven together at right angles to make fabric.

It is essential to have this grainline parallel to the selvage or crosswise grain of the fabric.



If the fabric is not on grain, or if the grain is stretched out of its woven position, the garment will not fit with perfection, keep its shape, or hang well.

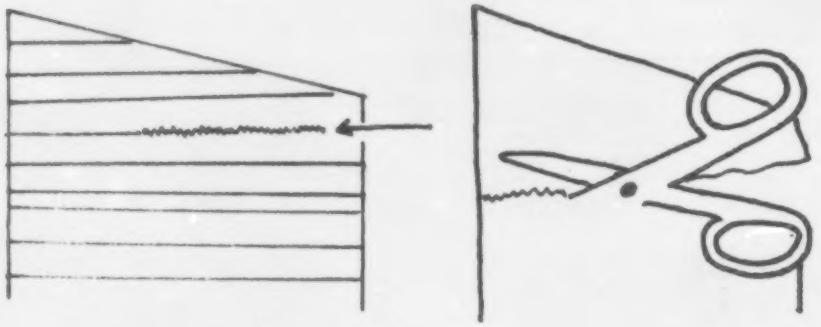


Fabric on Grain

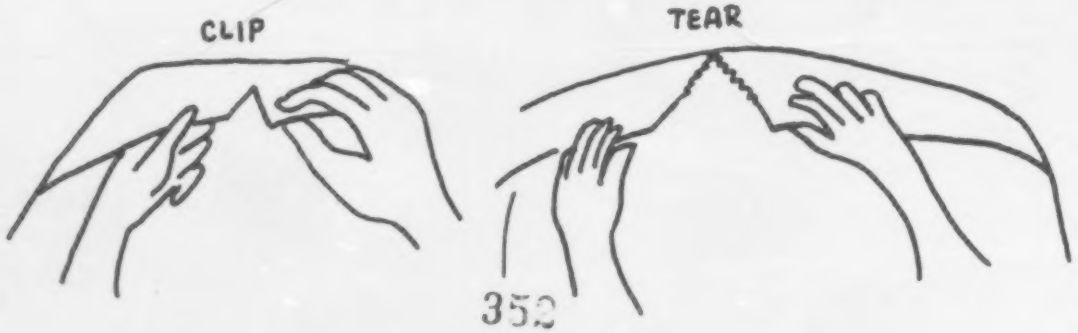
Fabric Off-grain

To Straighten Ends of Fabric

A. You may have to straighten uneven ends. PULL A CROSSWISE thread; then cut along this thread... OR (See B)



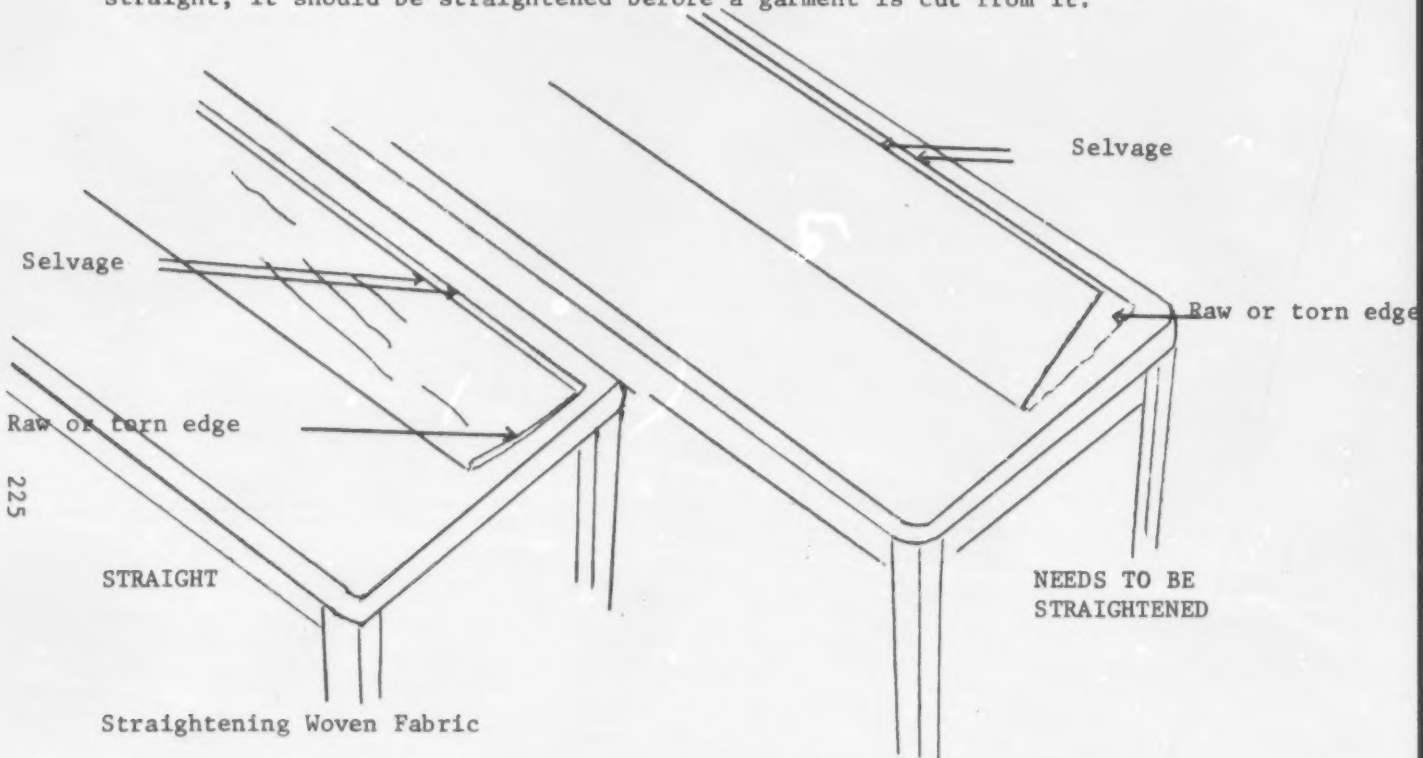
B. If fabric can be torn, cut through selvage and tear across width of fabric from selvage to selvage.



Selvage ... Selvage is the woven edge of the fabric.

Checking Woven Fabric for Straightness

It can be determined if fabric is straight by placing it on a large table and making a lengthwise fold down the center so that the two selvages of the fabric will come together even with the side edge of the table. The two raw edges (or torn edges) at either end of the fabric will come together also, even and perfectly parallel with the end of the table. IF the fabric is not perfectly straight, it should be straightened before a garment is cut from it.



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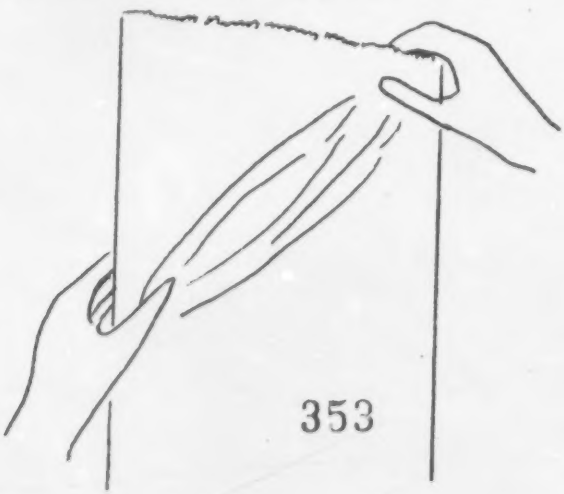
Straightening Woven Fabric

Quite often during the process of manufacture, fabrics with crosswise threads become pulled diagonally or off-grain. To straighten, the fabric is pulled diagonally in the opposite direction until crosswise threads are straightened and squared with selvage and even with edges of cutting table.



Appendix 5.4-4

Fabrics Which Cannot Be Straightened

Some woven fabrics cannot be straightened by this method because of the type of finish which has been applied. When this is the case, the fabric is used as it is, since it will remain set in the off-grain position throughout the lifetime of the garment. Some woven fabrics and those with novelty weaves cannot be straightened by pulling diagonally.

Knit fabrics pulled off grain should be avoided. Knit fabrics do not have warp (lengthwise) and filling (crosswise) threads, since they are not woven, but it is necessary to observe grain. They do have wales, the column of loops which run parallel to the long measurement of the cloth, and course, the series of loops lying crosswise of the fabric. When cutting knitted fabrics, the wales are used to measure grain. Tubular knits should be cut open along a wale and handled as flat fabric.

Appendix 5.5-1

PATTERN LAYOUT
Berneice Gunn

Competencies: From various resources, the student should be able to define terms related to pattern layouts.

Using personally selected fabric and pattern, the student should be able to demonstrate proper techniques for laying the pattern on the fabric.

Activities:

1. Read the attached sheet, HINTS FOR PATTERN LAYOUT.

2. On a separate sheet of paper,

   A. Define the following terms:

guide sheet	selvage
lay-out	right side
crosswise fold	wrong side
lengthwise fold	

   B. Study your pattern and from it answer the following questions:

      1) What pieces will be placed on the fold? Why?

      2) What pieces will be cut double (not on fold)?

      3) Which layout will you use?
         How did you decide?

      4) Which pattern pieces will you place first?

      5) How will you check to see if the pattern pieces are on the straight of the grain?

      6) How do you place your pins in a layout?

3. Performance test:

   Demonstrate: Lay out your pattern pieces applying all the techniques appropriate for your material.

   Check with your teacher before cutting.

Appendix 5.5-2

Hints for Pattern Layout

Before the pattern is laid on the properly prepared fabric, study it carefully to understand all the helpful information that is provided with it.

Many patterns offer more than one view of the same pattern. Choose the view you prefer and mark it for quick reference. On the back of the pattern envelope locate the view you have chosen, the width of the fabric you have purchased, and the size of the pattern which you are using.

On the guide sheet find the correct layout for your particular view, fabric width and size. Circle again for easy reference. Remove your pattern from the envelope. Cut out the small pieces leaving approximately 1½ inch margins. Write your name and class period on each pattern piece you will use (determined by view you have chosen).

Separate all the pieces you will not be needing for your particular view, pin them together and return them to the pattern envelope; this keeps the work area neat and also avoids accidentally cutting a wrong piece. Locate the pattern on the fabric, placing all your pattern pieces according to the layout instructions on your guide sheet. Place all the pattern pieces on before beginning to pin, as this avoids the confusion of pinning and then having to unpin to move. Locate the straight of fabric marking on the grain of the fabric by having the ends of the marking line an equal distance from the straight edge of the fabric. Check for accuracy by measuring from each end of the marking line to the edge of the fabric. In pinning a pattern piece to the fabric, the first pins are placed along the fold or on the straight of the fabric marking a line in the direction of either the lengthwise or crosswise grain of the fabric. When the straight of grain is located, begin pinning the outside edges of your pattern piece. Pin diagonally into the corners with the point of the pin toward the edge of the pattern. Do not extend the point of the pin beyond the edge of the cutting line as it is impossible to cut the corner accurately with the pin interferring. First pin the pattern piece to the front at the end of the straight of fabric marking that is toward the widest area of the pattern piece. Measure. Pivot the pattern piece on the first pin until the other end of the straight of fabric marking is the same distance from the selvage; then pin the second end.

Check again to see that you have pinned around the outside of your pattern pieces. Pin all pieces before starting to cut, unless a different fold is required for some of the pattern pieces.

Complete the study guide and check with your teacher.

Appendix 5.7A-1

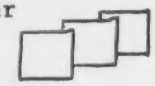
MARKING WITH TRACING PAPER

Competency: The student will be able to accurately demonstrate how to transfer pattern markings with a tracing wheel and carbon paper.

Activities: Read the following instructions on marking a dart by the Dressmaker's Carbon Paper Method.

First the pieces of equipment needed are:

A. Tracing Wheel

B. Dressmaker's Carbon Paper in several colors 

C. A ruler

D. A pattern with a dart and fabric.

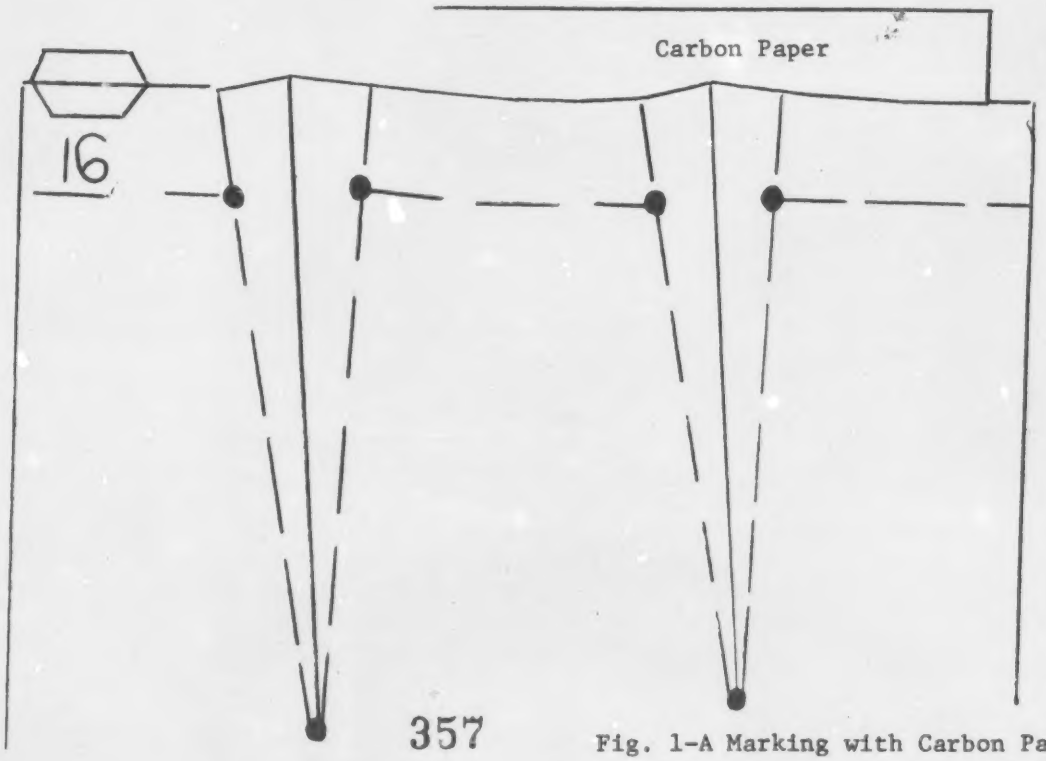


Fig. 1-A Marking with Carbon Paper

Marking a Dart with Carbon Paper and Tracing Wheel

1. The pattern is removed from the fabric. Enough pins are removed so that the carbon paper can be placed between the fabric and the pattern. (Fig 1-A)

2. One sheet of carbon paper is placed above and one below the two layers of fabric with the waxed sides of the carbon toward the wrong side of the fabric. The pattern is repinned.

3. For a straight line a ruler is used as a guide for the tracing wheel. Tracing is marked lightly and only once. (Fig 1-B)

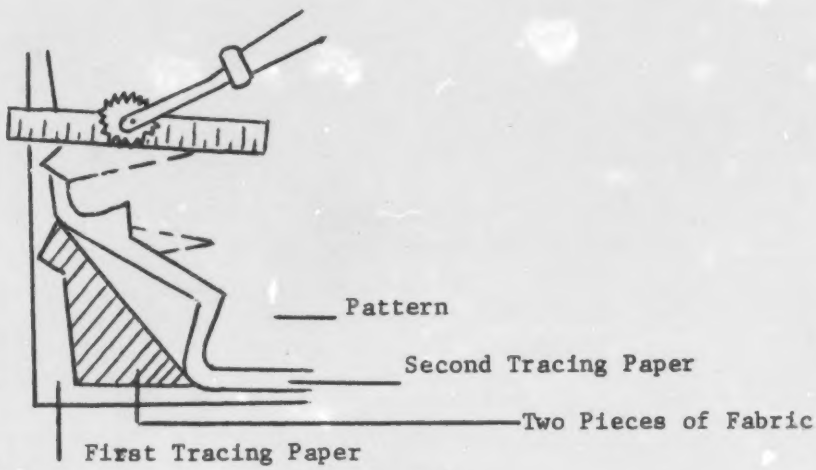


Fig 1-B

4. A small determination point for each line is marked by pressing down on the fabric with the tracing wheel. (Fig 1-C)

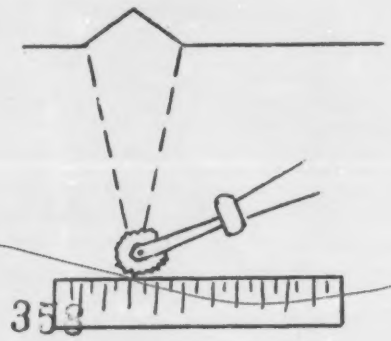


Fig 1-C Marking a Determination Point

5. A little practice helps to determine the amount of pressure needed to make a light, but adequate line. The lower fabric should be checked to see that it is marked.

6. If the fabric is folded with right sides out, two sheets of carbon paper are placed, unwaxed side together, between the two layers of fabric. The markings will then be on the wrong side of the fabric.

Self Test

Mark a dart by the dressmaker's carbon paper method on several types of fabric samples, using several colors of carbon paper. Fold darts ready to sew. Hand this in to the teacher.

Appendix 5.7B-1

MARKING WITH TAILOR TACKS

Competency: The student will be able to accurately demonstrate how to transfer pattern markings with tailor's tacks.

Activities: The following instructions are on marking a dart by tailor's tacks.

The items needed are:

A. Thread
B. Needle
C. A pattern with a dart and (scrap) fabric.

Marking with Tailor's Tacks

1. Double thread is used.

2. A knot in the end of the thread is not necessary.

3. A short stitch is taken through the pattern and both layers of fabric and the thread is drawn through, leaving about 1-1/2 inches of thread at the beginning of the stitch. (a in Fig 2-A)

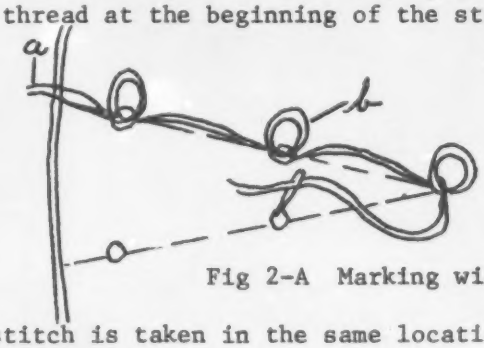


Fig 2-A Marking with Tailor's Tacks

4. A second stitch is taken in the same location leaving a 1-inch loop. (b in Fig 2-A)

5. The step above is repeated as needed along the line of the dart.

6. Before the pattern is removed from the fabric, the thread is cut between the tailor's tacks. (a in Fig 2-B)

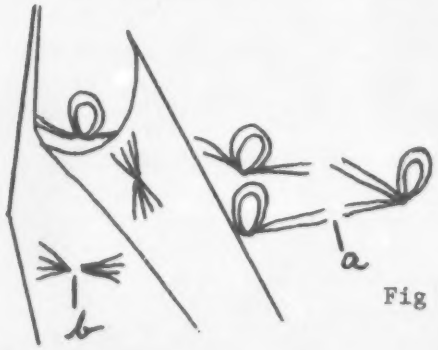


Fig 2-B Cutting the Tailor's Tacks

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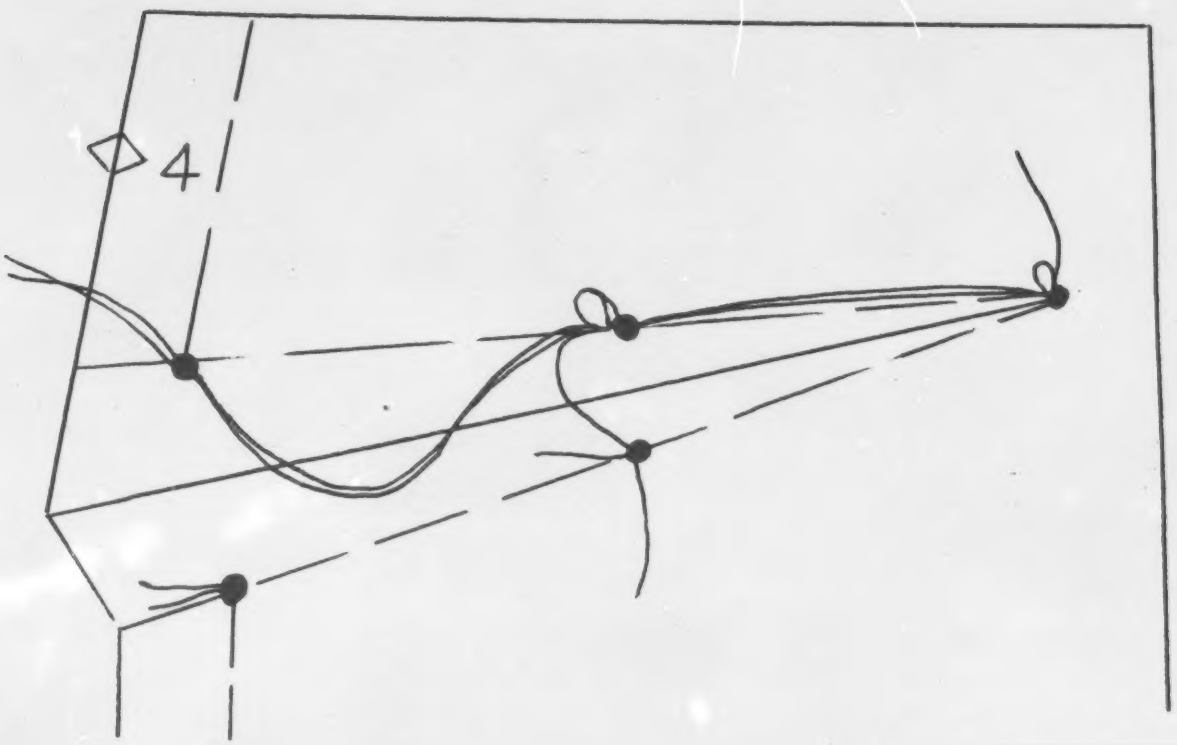
7. The pattern is unpinned. While the loop is held between the pattern and the fabric, the fabric is gently pulled away. (Small holes are made in the pattern as the loops are pulled through.)

8. The garment pieces are separated about 1/2 inch at each tailor's tack, and the threads cut between the two layers of fabric. (b in Fig 2-B)

   Look at the following example of tailor's tacks.



Self Test

Mark a dart by the tailor's tack method and judge it against examples. Go ahead and fold dart ready to sew. Do not pull tailor's tacks. Hand in to the teacher.

Appendix 5.7C

MARKING WITH PINS

Competency: The student will be able to demonstrate how to accurately transfer pattern markings with pins.

Activities:

1. The following instructions are for marking a dart by pinning.

2. The pieces of equipment needed are:

   A. Pins
   B. A pattern with darts and (scrap) fabric.

3. Garment pieces should be handled carefully to prevent pins from slipping out.

4. This method of marking construction details is most satisfactory when the fabric is folded with its right sides together.

Self Test

Mark a dart by the pinning method. Separate the fabric from the pattern. On one dart fold it ready to sew. Leave the other dart as it is and hand them in to the teacher.

Marking Darts with Pins

1. Pins are pointed straight down through the pattern and both layers of fabric at intervals along the line of the dart.

2. The pattern and the fabric are turned so that the pattern is lying on the table and the pins are pointing up.

3. A second pin is inserted through the fabric and pattern in the exact location of each pin. (a in Fig 3-A)

Fig 3-A Marking with Pins

Appendix 5.7D

TRANSFERRING PATTERN MARKINGS

Self-test - Transferring Pattern Markings

Get a variety of at least ten scrap fabrics including velvet, corduroy, sheers, satin, heavy wools, white broadcloth, etc. and try all three methods (tailor's tacks, carbon paper, and pinning) on each.

Check the marking method which would <u>not</u> be suitable to the fabric.

Color and Type of Fabric	Tailor's Tacks	Carbon Paper	Pinning
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Appendix 5.8-1

STAYSTITCHING

Competency: When constructing a garment, the student will apply techniques for staystitching and construct a garment without stretched areas.

Activities:

1. Read the attached sheet, "Why Staystitch?"
2. Answer the following questions on a separate sheet of paper.
   A. What is the purpose of staystitching?
   B. How far from the edge is staystitching done?
   C. When do you staystitch?
   D. Where is staystitching done?
   E. What does directional staystitching mean?
3. Staystitch your garment or a sample.

WHY STAYSTITCH?

A scrap of fabric should be picked up and pulled in several directions. It should be noticed that it stretches as it is pulled. Staystitching keeps garment parts from stretching out of shape.

The complete name for staystitching is directional staystitching. It is a special way to use what has been learned about stitching with the sewing machine.

Parts of a garment with curved edges are never stretched on purpose as you sew them, as this may alter the appearance of the garment. If the edges are not staystitched, they may stretch without being noticed. Why does a neckline on a blouse or dress look droopy or out of shape? It may have been stretched as it was being made.

Look at the words "STAY" and "STITCH". They mean that STITCHING is done to make the fabric grain STAY in place. If one part of the fabric stretches, it will not fit the part which is sewed to it. A collar will not fit a stretched neckline.

When Do You Staystitch?

Staystitching is the very first sewing step. It is a row of regular length stitching done with matching thread. Sewing is done through one thickness of fabric. Backstitching or tying thread ends is not necessary. Threads can be clean-cut close to the fabric at each end.

Where Is Staystitching Done?

It is done through a SINGLE layer of fabric.

A row of REGULAR machine stitching is 10 or 12 stitches to the inch.

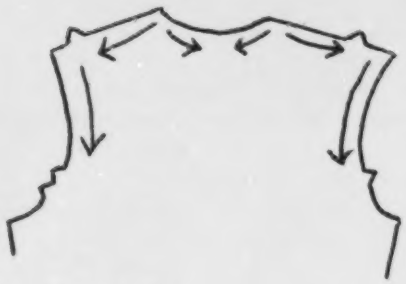
It is sewn 1/2 inch away from the raw edge.

The thread ends are not tied or secured.

All curved areas are staystitched.

Staystitch the shoulder if the fabric is a knit or if it requires ease. See the diagrams below.

Shirt or Blouse



Pants

SLEEVE

.When using a quick method of putting in the sleeve:
DO NOT staystitch the garment armhole;
DO NOT staystitch the sleeve.

.When using a "regular" method, where garment will be handled over a longer period of time:
DO staystitch the garment armhole;
DO staystitch the sleeve. (See below.)

Appendix 5.9A-1

DARTS

Competency: The student will construct a two-pointed dart and will list three criteria in evaluating dart construction.

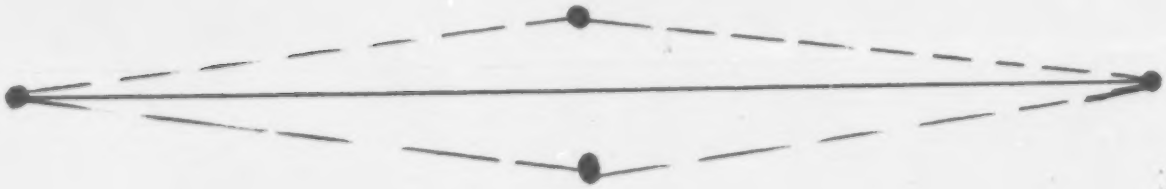
Resources: Attached papers
Bancroft, Sew So Easy
Vanderhoff, Clothes: Part of Your World, pp. 178-180

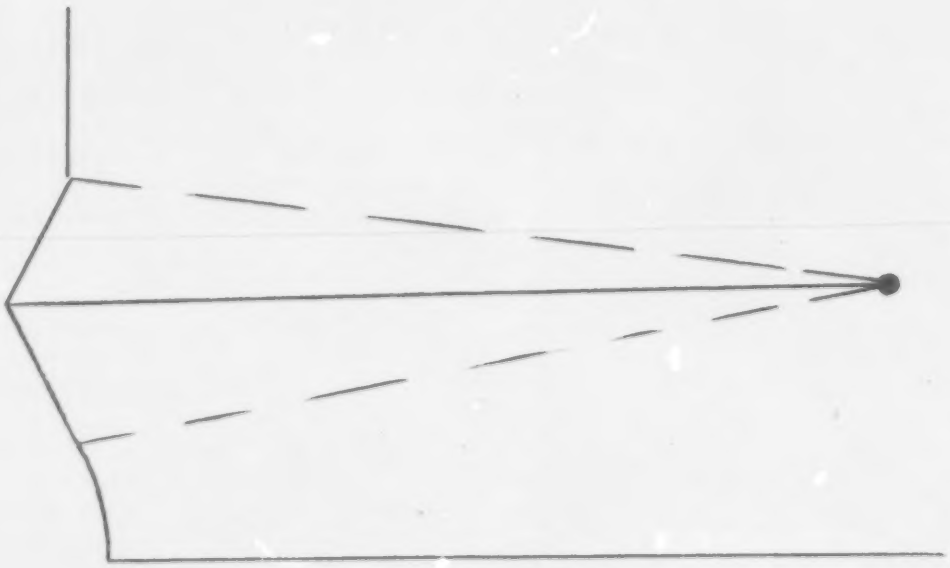
Activities:

1. Read attached papers and one additional reference on how to sew darts.

2. Construct a "one" and a "two" point dart using patterns provided below.

3. List three criteria for evaluating darts.





Appendix 5.9A-2

PATTERN FOR DART SAMPLE

Appendix 5.9A-3

INFORMATION ON DARTS

Criteria for Evaluating Darts

A. Point should not bubble.
(To taper the point to nothing so that no "bubble" forms, take the last few stitches on the fold, turning the machine wheel by hand.)

B. Stitch straight.

C. Pressing should be done:

1. in inward or downward direction, or as pattern states;
2. over ham to give desired shape needed.

Marking of Darts on Fabric

A. Darts should be marked with tracing equipment.

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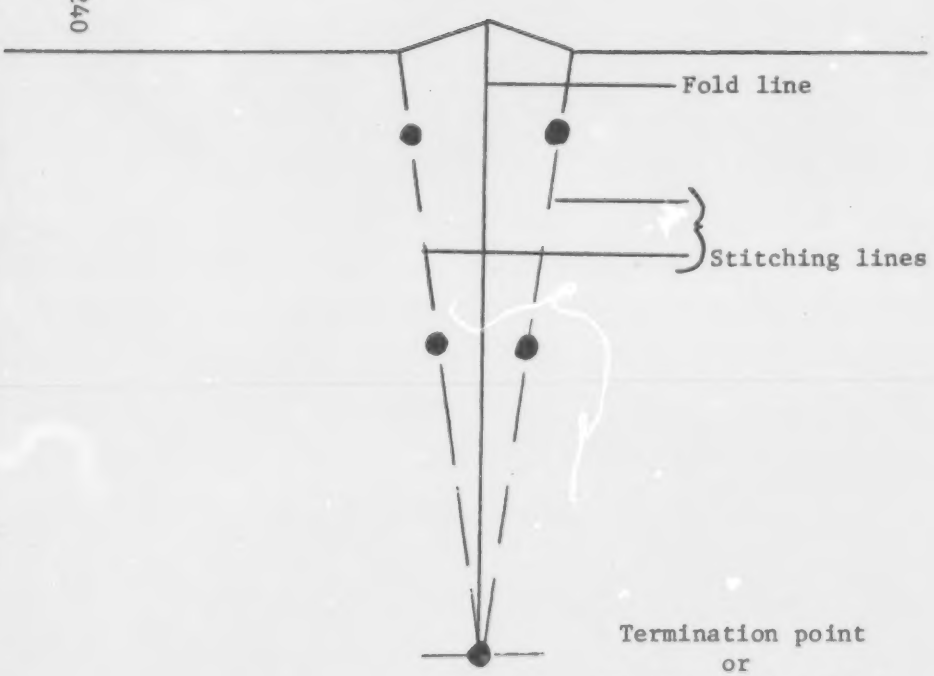

Appendix 5.9A-4

INFORMATION ON DARTS

Pinning

A. Fabric is folded, right sides together, on the center crease marking of the dart.

B. Stitch line markings are matched.

C. Each end of the dart is pinned with one between placed in the middle. (See example.)

Stitching

A. Wide end of dart is placed under presser foot. The bulk of the fabric should be to the left of the presser foot.

B. Stitching is done from wide to narrow end, tapering to a point.

C. Back-stitch at wide end. Ends are tied at pointed end.

Pressing

A. Dart is pressed flat.

B. Fold of underarm dart is pressed downward.

C. Darts are pressed toward center front or center back.

D. Darts are pressed toward the pointed end using a tailor's ham.

Appendix 5.10A-1

PLAIN SEAMS AND SEAM FINISHES

Competency: From study and observation, the student should be able to identify seams and seam finishes to be used on a particular fabric.

Given the opportunity, the student should be able to make plain seams and several seam finishes.

Resources: Attached information
Bane, Creative Clothing Construction
Sewing books: Simplicity, Butterick, Singer, McCalls

Activities:

Complete as directed.

1. The attached information is read.

2. Seam, seam allowance, seamline, seam finish, hand baste, pin baste are defined.

3. Using scraps of fabric, plain seam/seams are made and following finishes are applied:

   A. Clean finish (edge turned and stitched)
   B. Zig-zag
   C. Double stitched

4. Performance test:

   If a garment is being constructed, proceed with seams and seam finishes on your garment. Give the reason(s) why a particular seam finish was used.

Seams form the structural lines of a garment. Their purpose may be either functional and/or decorative. If they are primarily functional, then they must be as flat and inconspicuous as possible. If they are to be decorative and add interest to the design of the garment, they may be handled in various ways, depending upon the effect desired. Regardless of purpose, the way a seam is stitched and pressed partially determines the final appearance of the garment. Consequently, accurate stitching as well as correct pressing is of utmost importance.

Stitching Principles

1. Starting and ending a seam.
   The stitching is reversed for two or three stitches at the start and at the end of the stitching. Threads are clipped at the last stitch.

Appendix 5.10A-2

PLAIN SEAMS AND SEAM FINISHES

Pressing Principles

1. Opened seams.
   Most seams are pressed open unless otherwise specified in the guide sheet. Shoulder seams and side seams are pressed open. In areas where a flat, crisp edge is required, such as belt seams and down the front of a jacket or vest, the seams should be pressed open first and then refolded and edges pressed together flat.

2. Seams turned in one direction.
   Both sides of the seam are pressed one way, giving a fairly pronounced edge. Armscye, pleats, waistline seams (yoke seams) are three areas where this method is sometimes desirable.

Setting Standards

1. Both sides of a seam should be even in width.

2. All stitched lines must be even. "Wiggly" lines will create a problem in pressing as well as detract from the general appearance of the garment.

3. The cut edges of the seam should be matched.

4. Each seam should be stitched and pressed before crossing it with another seam.

PLAIN SEAM

By far the most widely used seam is the plain seam; its purpose is functional.

Making a plain seam. A plain seam is made by placing the right sides of two pieces of fabric together, pinning and then stitching on the designated seam line with a regulation stitch. (A regulation stitch is the stitch length usually recommended for medium weight fabrics, 10 to 12 stitches per inch.) Seams which are cut on an angle generally require a line of stay-stitching placed near the seam line.*

Selecting a finish. When determining the kind of finish most appropriate to use, consider the (1) type of fabric, (2) kind of garment, and (3) location of the seam. However, keep in mind a standard rule: a <u>minimum</u> finish is all that is necessary. To determine what this minimum is, keep in mind the following:

1. Some fabrics such as jersey, lace, net, felt, and some knits (none of these are woven fabrics) will not ravel and hence will require NO finish.

2. Other fabrics, because of the closeness of the weave and the kind of finish applied to the fabric after weaving, may not ravel and so will require NO finish.

3. Loosely woven fabrics tend to ravel and will require a finish.

4. Fabrics which are to be laundered frequently require sturdier seam construction and/or finish than those which will be dry cleaned. Also, remember that machine washed garments will be exposed to more friction during laundering than those being hand washed.

Testing for a seam finish. After considering the previous factors, the garment fabric needs to be tested before reaching a definite decision relative to the proper finish. A scrap of your material is taken, an edge is cut which follows the same grain as in the planned garment and:

1. The cut edge is gently pulled; the extent of raveling is noted.

2. The edge is pinked, and this edge is tested in the same manner as above. If the fabric ravels to any extent, the pinked edge is reinforced with a short machine stitch (18-20 stitches per inch) about 1/8 inch from the pinking. It is determined whether the stitching sufficiently increases the stability of the pinked edge by using the same testing procedures.

3. If the garment is to be laundered, a sample is washed with the proposed finish. The same conditions are simulated to which the garment will be exposed in laundering. The results are noted.

FINISHES FOR A PLAIN SEAM

Suitable for fabrics which do not ravel.

1. With firm, light or medium weight fabrics the seam edges are trimmed evenly.

2. With heavy fabrics, the seam edges are leveled by holding the blades of the shears with the flat side parallel to the fabric (the handles of the shears will be at an angle to the edge of the fabric).

3. The seam is pressed open after pressing it flat in the same position in which it was stitched.

Double Stitched. Strength is given to seams which must withstand strain in wearing (e.g., armscye and waistline seams).

1. A second row of stitching is placed about 1/8 to 1/4 inch from the seam line stitching.

2. Excess fabric is trimmed 1/16 to 1/8 inch from the second row of stitching.

3. Raw edges are placed together and overcast by machine or by hand if the fabric ravels.

Note. The placement of the second row of stitching and the closeness of the trimming will be dependent upon the location of the seam and the type of fabric used. The wider width (1/4 inch seam plus 1/8 inch) is usually preferred for armscye seams; the narrower width (1/8 inch seam plus 1/16 inch) may be preferred for soft, sheer fabrics.

Clean Finish -- edge turned and stitched. This finish produces a heavier edge finish than the previous finishes discussed. Its use is suggested for only light and medium weight fabrics. Unlined jackets frequently employ this finish because of its neat appearance.

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1. On each side of the seam allowance the seam is staystitched with the grain about 1/4 inch from the cut edge. Staystitching is unnecessary if the cut edge is on the straight grain.

2. The raw edge is turned under just enough to cover the staystitched line and is stitched close to the folded edge from the upper side. Remember that stitching from the upper side helps to hold down a narrow edge and thus eases and speeds the stitching process. It is unnecessary to stitch with the grain for the second line of stitching.

3. The seam is pressed open carefully.

S E W I N G W I T H K N I T S

M I N I - U N I T

Written By:

Mary Jane Torok
Jan Nell Reed

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Warch, Constance. Illustrated Guide to Sewing. Fullerton, California: Plycon Press, 1975.

Other Educational Materials

Coats and Clark Co., 72 Cummings Point Road, Stamford, Connecticut 06902.

SEWING WITH KNITS

Basic Techniques in Knit Construction: T-Shirts and Slacks

Introduction:

This individualized unit is designed to acquaint students with basic procedures in using patterns for stretch fabrics and sewing with knits. It is assumed that the teacher is acquainted with construction of garments of knit fabric.

Included in this unit are eight related activities with competencies, student instructions and teacher suggestions. A teacher may use competencies and student instructions to design her own contract or put the competencies and student instructions on separate cards and let students prepare their own contracts (see Appendix A for sample contract).

Each student should also prepare a weekly goal sheet. The teacher should review goals and goal accomplishments in individual conferences at least once a week (see Appendix B for sample goal sheet).

If contract method is used, student should receive dittos of contract, goal sheets and evaluation of activity prior to beginning the project (see Appendices D, F, G, H, I, J 1-2, for sample evaluations).

Teacher demonstrations for activities 1-4 should include pre-shrinkage of fabric, measuring procedures, pattern preparation, and construction techniques. Teacher may have tagboard patterns prepared.

Activities

1. T-SHIRT
2. KNIT SLACKS WITH ELASTIC WAIST
3. VARIATION OF T-SHIRT
4. VARIATION OF KNIT SLACKS WITH ELASTIC WAIST
5. IDENTIFICATION OF KNITS
6. CARE OF KNITS
7. T-SHIRT HANG TAG
8. KNIT HEM SAMPLES

Activity 1
T-SHIRT
Time Required: 5-10 days

COMPETENCY: Trace pattern in correct size and construct a T-shirt.

EQUIPMENT:
- T-shirt pattern for knit fabrics
- 1-1/4 yards pattern tracing paper or prepared tagboard pattern
- 1 yard knit fabric
- 2-1/2" - 3" rib trim for neck (and sleeve if desired)
- Thread
- Fusible webbing (optional)
- Tape measure
- Round head pins, pin cushion
- Shears
- Ball point needle, size 11 or 14

STUDENT INSTRUCTIONS FOR CONSTRUCTION:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet(s).
3. See teacher demonstration.
4. Preshrink fabric (not rib trim) in manner you plan to launder finished garment.
5. Measure just above fullest part of bust or chest to determine pattern size.
6. Trace and cut out pattern.
7. Place and pin pattern on preshrunk knit fabric. After checking with teacher, cut fabric.
8. Construct T-shirt using 1/4" seam allowance following procedures in guide sheet (Appendix C 1-2). Construct T-shirt in following order:
    - shoulder seams
    - crew neck
    - sleeves
    - side seams
    - hems
9. Evaluate garment (Appendix D).

NOTE TO TEACHER: Basic instructions in Appendix C 1-2.

Dittos should be prepared for contract, goal sheets and evaluation (Appendix D).

The complete project should be demonstrated to the students.

Illustrations or samples of each step should be available to the students.

Activity 2
KNIT SLACKS WITH ELASTIC WAIST
Time Required: 5-10 days

COMPETENCY: Trace pattern in correct size and construct knit slacks with an elastic waist, tennis shorts will elastic top, or warm-up pants.

NOTE TO TEACHER: A drawstring unisex pants pattern would be suitable for use.

Basic instructions are in Appendix E 1-2.

Dittos should be prepared for contract, goal sheets and evaluation (Appendix F).

The complete project should be demonstrated to the students.

Illustrations or samples of each step should be available to the students.

EQUIPMENT:
- Slacks pattern for knit fabrics
- 1-1/2 yards pattern tracing paper or prepared tagboard pattern.
- 1-1/4 yards 60" double knit fabric
- 3/4" no-roll elastic to fit waist
- Tape measure
- Round head pins, pin cushion
- Shears
- Ball point needle, size 11 or 14

STUDENT INSTRUCTIONS FOR CONSTRUCTION:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet(s).
3. See teacher demonstration.
4. See Appendix E 1-2 for detailed instructions. Preshrink fabric (not waist elastic) in manner you plan to launder garment.
   a. Measure hips 7" below waist, measure crotch depth, measure length.
   b. Trace your correct size on tracing paper.
   c. Adjust length if necessary.
   d. Cut out pattern.
   e. Adjust crotch depth if necessary.
   f. Place and pin pattern on preshrunk knit fabric (check with teacher).
   g. Cut out fabric.
   h. Construct pants using 5/8" seam allowance following guide sheet in this order:
      - outside leg seams
      - inside leg seams
      - crotch seam
      - elastic at waist
      - hem
5. Evaluate garment (Appendix F).

Activity 3
VARIATION OF T-SHIRT
Time Required: 5-10 days

COMPETENCY: Select T-shirt pattern variation and construct a garment.

EQUIPMENT:
- T-shirt pattern for knit fabrics
- Pattern tracing paper
- Knit fabric
- Thread
- Tape measure
- Round head pins, pin cushion
- Shears
- Ball point needle, size 11 or 14
- Rib trim (optional)

PREREQUISITE: Successful completion of T-shirt.

STUDENT INSTRUCTIONS FOR CONSTRUCTION:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet(s).
3. Investigate ideas:
   - night shirt
   - shell or tank top
   - body shirt
   - long T-shirt dress
   - applique on shirt
   - embroidery on shirt
   - neckline variations
   - patchwork garment from fabric scraps
4. See teacher demonstration and/or variation ideas.
5. Design idea on paper (see teacher).
6. Preshrink fabric (not rib trim) in manner you plan to launder finished garment.
7. Make and cut pattern.
8. Place and pin pattern on preshrunk knit fabric. After checking with teacher, cut fabric.
9. Construct garment.
10. Evaluate garment (Appendix G).

NOTE TO TEACHER: Dittos should be prepared for contract, goal sheets and evaluation (Appendix G).

Demonstrate and/or display variation ideas.

Provide resource books:
Stretch and Sew
Easy Sewing with Knits
The Complete Book of Sewing
Everything About Sewing Knit
See bibliography for complete information.

Activity 4
VARIATION OF KNIT SLACKS WITH ELASTIC WAIST
Time Required: 5-10 days

COMPETENCY: Select knit slacks pattern variation and construct a garment.

NOTE TO TEACHER: Dittos should be prepared for contract, goal sheets and evaluation (Appendix H).

Demonstrate and/or display variation ideas.

Provide resource books:
- Stretch and Sew
- Easy Sewing with Knits
- The Complete Book of Sewing
- Everything About Sewing Knit

See bibliography for complete information.

EQUIPMENT:
- Slacks pattern for knit fabrics
- 1-1/2 yards pattern tracing paper
- Knit fabric
- Thread
- 3/4" no-roll elastic to fit waist
- Tape measure
- Round head pins, pin cushion
- Shears
- Ball point needle, size 11 or 14

PREREQUISITE: Successful completion of knit slacks with elastic waist.

STUDENT INSTRUCTIONS FOR CONSTRUCTION:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet.
3. Investigate ideas:
   - shorts (gym, boxer type, tennis)
   - culottes, pedal pushers or gaucho pants depending on fashion
   - western bell bottom slacks
   - flared leg slacks
   - applique or embroidery on slacks
   - patchwork slacks from fabric scraps.
4. See teacher demonstration and/or variation ideas.
5. Design idea on paper (see teacher).
6. Preshrink fabric in manner you plan to launder.
7. Make and cut pattern.
8. Place and pin pattern on preshrunk knit fabric. After checking with teacher, cut fabric.
9. Construct garment.
10. Evaluate garment (Appendix H).

Activity 5
IDENTIFICATION OF KNITS
Time Required: 2 days

COMPETENCY: Identify and display knit fabrics.

EQUIPMENT:
- Samples of different knit fabrics
- Shears
- Posterboard and glue

STUDENT INSTRUCTIONS:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet.
3. Study definition of each knit fabric.
4. Examine knit fabric garments.
5. Find a sample of each knit type.
6. Identify and display knit samples (be as creative as you desire).
7. Evaluate activity (Appendix J 1-2).

NOTE TO TEACHER: Dittos should be prepared for contract, goal sheet and evaluation (Appendix J 1-2).

Dittos should be prepared for definition of knits (Appendix I).

Samples of the following knit types should be available to the students: single, double, ribbing, sweater, lingerie, and warp.

Various garments constructed from the different knit fabrics should be displayed.

Activity 6
CARE OF KNITS
Time Required: 2 days

COMPETENCY: Investigate care of knit fabric by observation of following changes:
- shrinkage
- raveling of unfinished edges
- wrinkle resistance

EQUIPMENT:
- Scrap knit fabric
- Shears
- Washer, dryer
- Posterboard
- Glue

STUDENT INSTRUCTIONS:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet.
3. Predict results.
4. Cut four 4" x 4" squares of your knit T-shirt fabric. Do the following:
   a. Leave one square unlaundered
   b. Launder one square in cold water
   c. Launder one square in warm water
   d. Launder one square in hot water
   e. Dry samples by laying flat
   f. Record results
   g. Repeat a, b, c, d
   h. Dry samples in dryer
   i. Record results
   j. Make a poster with the samples
   k. Write a comparison of the four samples including any shrinkage, color, raveling, or wrinkle resistant changes.
   l. Write care instructions for T-shirt.
5. Evaluate activity (Appendix J 1-2).

NOTE TO TEACHER: Dittos should be prepared for contract, goal sheet and evaluation (Appendix J 1-2).

Activity 7
T-SHIRT HANG TAG
Time Required: 2 days

COMPETENCY: Collect information about fabric from end of bolt and construct a hang tag for T-shirt.

EQUIPMENT:
- Construction paper or tagboard
- Felt pens
- Scissors

STUDENT INSTRUCTIONS:
1. Prepare, sign and turn in contract to teacher.
2. Prepare weekly goal sheet.
3. Read hang tag resource material designated by teacher.
4. Obtain the following information from the end of a fabric bolt:
   - fabric manufacturer
   - fiber content
   - care instructions
   - shrinkage
4. Determine total cost of T-shirt.
5. Design hang tag and transfer collected information including size of T-shirt to hang tag.
6. Evaluate activity (Appendix J 1-2).

NOTE TO TEACHER: Dittos should be prepared for contract, goal sheet and evaluation (Appendix J 1-2).

Provide resource material for hang tags, e.g., Lessons in Living, pgs. 188-192.

Provide samples of hang tags--commercial or self-created ones.

Activity 8
KNIT HEM SAMPLES
Time Required: 2 days

COMPETENCY: Evaluate four hemming techniques on knit fabrics by comparing the hemmed samples for stretchability, durability, appearance, construction time, and personal preference.

NOTE TO TEACHER: Dittos should be prepared for contract, goal sheet and evaluation (Appendix J 1-2).

The hemming techniques should be demonstrated and samples displayed.

EQUIPMENT:
- Scrap knit fabric
- Shears
- Washer, dryer (optional)
- Thread
- Fusible webbing
- Iron

STUDENT INSTRUCTIONS:
1. Prepare, sign and turn in contract to teacher.
2. Prepare goal sheet.
3. See teacher demonstration.
4. Cut five 4" x 8" pieces of knit fabric and fold and press a 1" hem in each piece.
5. Hem samples. Use all of the following techniques:
   a. Catch stitch
   b. Slip stitch
   c. Running stitch
   d. Machine blind stitch
   e. Fusible webbing
6. Launder (wash and dry) samples in the same manner twice.
7. Analyze each sample according to the criteria below and write summary of findings:
   a. Stretchability
   b. Durability
   c. Appearance
   d. Construction time
   e. Personal preferance
8. Evaluate activity (Appendix J 1-2).

APPENDIX A

CONTRACT: BASIC TECHNIQUES OF KNIT CONSTRUCTION

NAME _____
PERIOD _____

I will complete the following activities to the best of my ability to earn a grade of: _____.

1 or A	2 or B	3 or C	4 or D	Average Time Required by Days	Possible Points
T-Shirt	T-Shirt	T-Shirt	T-Shirt	5 - 10	100
Knit Slacks With Elastic Waist	Knit Slacks With Elastic Waist	Knit Slacks With Elastic Waist	Knit Slacks With Elastic Waist	5 - 10	100
Variation of T-Shirt or Knit Slacks				5 - 10	100
Identification of Knits	Identification of Knits			2	50
T-Shirt Hang Tag	T-Shirt Hang Tag	T-Shirt Hang Tag	T-Shirt Hang Tag	2	50
Knit Hem Samples	Knit Hem Samples	Knit Hem Samples	Knit Hem Samples	2	50

APPENDIX B

GOAL SHEET

WEEK OF	MY GOALS FOR THE WEEK	I ACCOMPLISHED
1	1. Measure 2. Trace and cut pattern 3. Place and pin pattern on fabric 4. Cut fabric	Measure Trace and cut pattern Place and pin pattern on fabric
2	1. Cut fabric 2. Shoulder seams 3. Neck rib trim	
3		
4		
5		
6		
7		

APPENDIX C-1

T-SHIRT INSTRUCTIONS

1. Preshrink fabric. Fold tracing paper as illustrated and place Stretch and Sew pattern under paper to trace.

2. Cut pattern. Your pattern must be a complete back, front and sleeve.

3. Place and pin pattern on fabric with greater amount of stretch going across the pattern (around the body). (Fabric must be preshrunk). Check with teacher.

4. Cut fabric. You will have one back, one front and two sleeves.

5. Use 1/4" seam allowance throughout and a longer than normal stitch length. Stretch fabric as you sew.

6. Sew shoulder seams. Press seams toward back of garment.

7. Cut away 3/4" from neckline of back and front.

8. Cut ribbing so you have one long piece.

9. To get correct size for neckband, stretch the band tightly around the head adding 1/2" for seam. Be sure you can pull the neckband over the head. Cut.

10. Sew the ends of this band, right sides together, to form a circle. Fold trim in half lengthwise, wrong sides together, forming a cylinder.

11. Divide neck band and neck opening in fourths with pins. (Note: Shoulder seams are not the halfway point.)

12. Match fourths, placing seam of trim at center back. Pin raw edges of rib trim to neck edge.

13. Sew the neckband onto the shirt, stretching the neckband between the pins so that it will fit the neck opening. (Hint: when stretching a small piece onto a larger piece, place the piece you are stretching on top.)

T-SHIRT INSTRUCTIONS

14. Finish seam allowance by: 1) zigzagging edges together and pressing into garment, or 2) press seam allowance into garment and topstitch 1/8" from seam line. Either will make neck last longer.

15. Divide sleeves in half and pin to garment at center shoulder and underarm edges.

16. With garment on top and sleeve next to sewing machine, sew sleeve to armscye, stretching arm opening to fit sleeve. Stretch extra fullness of sleeve equally around opening. Press seam allowance into sleeve.

17. Sew side seams, stitching from bottom of garment to bottom of sleeve. Press toward back.

18. Try on T-Shirt to determine length of sleeves and bottom edge of shirt. Sleeve hems should be 1" and bottom hem should be 1-1/2". Press hem. Use catch stitch, top stitch, running stitch, machine blind hem stitch, or fusible webbing to hem.

Hints:

To put rib trim on sleeve remove 1" from lower edge of sleeve, measure rib around arm so it is comfortable and proceed using techniques for neck rib trim by dividing in fourths and stretching to fit. Finish seam allowance the same way.

When using stripes match the stripes at side seams. Sleeve stripes should match front and back stripe at lower edge of armscye.

When working with a loosely knit fabric, make a smaller size than when sewing with a very firm fabric.

APPENDIX D

T-SHIRT EVALUATION
Activity 1

NAME _____
PERIOD _____

NOTE: Evaluate as each step is completed.

POINTS POSSIBLE		POINTS EARNED STUDENT	POINTS EARNED TEACHER
10	PATTERN: is correct size, with full front, full back, and full sleeve	_____	_____
15	LAYOUT: has all pattern pieces on fabric in correct manner, pattern is smooth and flat with grainline straight	_____	_____
15	NECK: has no puckers, has straight stitching, with finished allowance 1/4", is pressed	_____	_____
15	SLEEVES: have no puckers, have straight stitching with 1/4" seam allowance and is pressed toward sleeve	_____	_____
10	SIDE SEAMS: have 1/4" seam allowance throughout, are pressed and straight	_____	_____
10	HEM: is straight, no wider than 1-1/2" on shirt and 1" on sleeves, has used correct method for specific fabric, looks professional	_____	_____
15	FIT: shoulders, neck, bust or chest, and hemline are correct	_____	_____
10	COMPLETION: on time as agreed in contract	_____	_____

90-100	1
80-89	2
70-79	3
60-69	4
0-59	5

COMMENTS:

STUDENT:

TEACHER:

APPENDIX E-1

KNIT ITEMS

1. Preshrink fabric. Measure hips 7" below waist or on the fullest part of hips. Choose pattern size according to this hip measurement. Measure crotch depth by sitting on a flat surface or chair with feet flat on the floor. Measure from your natural waistline to the seat of the chair (let another person measure you). Check this measurement with the pattern to see if an alteration will be necessary after pattern is cut out. Measure from your waistline to finished pant length preferred, add 1-1/2" to 2" for hem. Check pattern and note any pattern adjustments.

2. Trace your correct pant size on pattern paper. You may flair or taper leg as long as you do the same amount of adjustment on each side of the leg and the same amount to the front and back leg. Adjust length if necessary.

3. Cut out pattern. You will have one front and one back.

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4. Adjust crotch depth (if necessary) by cutting across lengthening or shortening line and adjusting for your body.

5. Lay pattern on preshrunk double knit fabric so the major stretch of fabric goes around body (check with teacher).

6. Cut fabric. You will have 2 fronts and 2 backs.

7. Use 5/8" seam allowance throughout. Use longer than normal stitch length. Stretch fabric as you sew.

8. Place together the right sides of left pants front to left pants back. Place together the right sides of right pants front to right pants back.

9. Sew outside leg seams, stitching from bottom to top of each leg.

10. Press seams open, then with lots of steam and a damp cloth, press the excess amount of fullness on the pant hip outward and up in the front, and outward and down in the back. You will be pressing the fullness from the sides to the largest areas.

11. Sew the inside leg seam of each leg, stitching from bottom to top. Press seam open.

12. Turn each leg right side out. If a crease is desired, lay seams together, and with a damp cloth and lots of steam, press each leg from the bottom all the way to the top in the front and only to the bottom of the crotch in the back.

13. Turn one leg wrong side out. Put the right side out leg inside the wrong side out leg. Right sides of legs should be facing each other. Match inside leg seams. Pin.

14. Stitch crotch seam, stretching constantly, starting at the waist edge on the front and stitching to the back waist edge. Trim seam to 1/4" in the crotch area. Stitch a second row 1/8" from the first row. Press the untrimmed portion of the seam open.

15. Cut a strip of 3/4" swimwear knit or no-roll elastic 1" to 2" smaller than body waist measurement. Lap elastic 1/2" making a circle, and fasten together with several rows of stitching.

16. Divide elastic in fourths and mark with pins or pencil. Match elastic divisions to the four seam lines at top wrong side of pants. Pin elastic with top edge of elastic even with top edge of pants.

17. Stitch first on bottom edge of elastic, then turn elastic to wrong side and stitch on bottom edge of elastic and both pieces of fabric. Use zigzag stitch for both of these rows of stitching if possible.

18. Turn 1/2" hem in bottom of pants legs. Hem. Use catch stitch, slip stitch, running stitch, machine blind hem stitch, or fusible webbing to hem.

APPENDIX F

EVALUATION OF KNIT PANTS WITH ELASTIC WAIST
Activity 2

NAME _____
PERIOD _____

NOTE: Evaluate as each step is completed.

POINTS POSSIBLE			POINTS EARNED STUDENT	POINTS EARNED TEACHER
10		PATTERN: has correct alterations, if necessary	_____	_____
15		LAYOUT: all pattern pieces are laid on fabric in correct manner, pattern smooth and flat, grain-line straight	_____	_____
15		SEAMS: have 5/8" allowance, are straight with side fullness pressed out, and has correct stitch length	_____	_____
10		CROTCH: is double stitched, is trimmed in crotch area, is pressed open where not trimmed	_____	_____
15		ELASTIC: is evenly distributed around top of slacks, with no folds or puckers, is stitched twice	_____	_____
10		HEM: is straight, has correct method for specific fabric, 1-1/2" to 2" wide, looks profes-sional	_____	_____
15		FIT: waist, hips, length are correct	_____	_____
10		COMPLETION: on time as agreed in contract	_____	_____
90-100	1	COMMENTS:		
80-89	2			
70-79	3	STUDENT:		
60-69	4			
0-59	5			

TEACHER:

APPENDIX G

EVALUATION OF VARIATION OF T-SHIRT
Activity 3

NAME _____
PERIOD _____

NOTE: Evaluate as each step is completed.

POINTS POSSIBLE			POINTS EARNED STUDENT	POINTS EARNED TEACHER
5		DESIGN: has written idea that is realistic but challenging, and is appropriate for figure type	_____	_____
15		PATTERN: is correctly made and is the correct size	_____	_____
15		LAYOUT: all pattern pieces are on fabric in correct manner, with pattern smooth, flat, and on grain-line	_____	_____
15		STITCHING: is even and is appropriate for garment	_____	_____
10		HEM: correct method is used for specific fabric, has appropriate width, and looks professional	_____	_____
15		FIT: fits at shoulders, neck, bust or chest	_____	_____
15		VARIATIONS: are applicable to project	_____	_____
10		COMPLETION: on time as agreed in contract	_____	_____

90-100	1
80-89	2
70-79	3
60-69	4
0-59	5

COMMENTS:

STUDENT:

TEACHER:

APPENDIX H

EVALUATION OF VARIATION OF KNIT PANTS WITH ELASTIC WAIST
Activity 4

NAME _____
PERIOD _____

NOTE: Evaluate as each step is completed.

POINTS POSSIBLE			POINTS EARNED STUDENT	POINTS EARNED TEACHER
5		DESIGN: written idea is completed	_____	_____
10		PATTERN: size is correct, alterations are made, if necessary	_____	_____
15		LAYOUT: all pattern pieces are laid on fabric in correct manner with pattern smooth and flat, and grain-line straight	_____	_____
10		SEAMS: 5/8" allowance, is straight, side fullness is pressed out, correct stitch length is used	_____	_____
10		CROTCH: is double stitched, is trimmed in crotch area, is pressed open where not trimmed	_____	_____
10		ELASTIC: is evenly distributed around top of slacks, no folds or puckers, is stitched twice	_____	_____
10		HEM: is straight, correct method for specific fabric, 1-1/2" to 2" wide is used, and has professional look	_____	_____
10		VARIATIONS: are applicable to project	_____	_____
15		FIT: waist, hip, length are correct	_____	_____
5		COMPLETION: on time as agreed in contract	_____	_____
90-100	1	COMMENTS:		
80-89	2			
70-79	3	STUDENT:		
60-69	4			
0-59	5			

TEACHER:

APPENDIX I

DEFINITION OF KNITS
Activity 5

Single Knit	Double Knit	Warp Knit	Ribbing	Sweater Knit	Lingerie Knit
-is usually light weight -has definite right and wrong side -is frequently found in tube form on fabric bolt -has loop on the wrong side in many fabrics -will run if the raw edge is pulled in some fabrics	-is firm and holds shape well -appears the same on both sides unless a printed fabric -will not run	-is generally more firm than double knits and less likely to snag -has vertical rows of loops on the right side and horizontal rows of loops on the wrong side in most fabrics -used in menswear	-has lengthwise ribs -stretches easily -is usually purchased by the inch -is used around necks of T-shirts	-is bulky, loosely woven with lots of stretch -stretches freely in both directions -looks and acts like hand knits -is found with ribbed, textured or flat surfaces	-is usually tricot warp knits -is generally made from nylon -is found in sheer, medium and heavy weights -has greatest stretch in width of fabric -is found in widths up to 108"

APPENDIX J-1

GENERAL EVALUATION OF KNIT PROJECT
Activities 5, 6, 7, 8

NAME _____
PERIOD _____

NOTE: Evaluate as each step is completed.

POINTS POSSIBLE		POINTS EARNED STUDENT	POINTS EARNED TEACHER
IDENTIFICATION OF KNITS			
10	KNIT SAMPLES: six types are displayed	_____	_____
15	IDENTIFICATION: each sample is correctly identified	_____	_____
15	DISPLAY: is creative, neat, original	_____	_____
10	COMPLETION: on time as agreed in contract	_____	_____
CARE OF KNITS			
10	SAMPLES: four knit samples 4" x 4" are displayed	_____	_____
10	POSTER: is creative, neat, original	_____	_____
15	REPORT: shrinkage, raveling, wrinkle resistance are compared	_____	_____
10	CARE INSTRUCTIONS: correct care of fabric is identified	_____	_____
5	COMPLETION: on time as agreed in contract	_____	_____
T-SHIRT HANG TAG			
30	INFORMATION: manufacturer, care instructions, fabric content, shrinkage, cost, size, is complete	_____	_____
15	HANG TAG: is creative, neat, original	_____	_____
5	COMPLETION: on time as agreed in contract	_____	_____

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APPENDIX J-2

POINTS POSSIBLE		POINTS EARNED STUDENT	POINTS EARNED TEACHER
KNIT HEM SAMPLES			
10	SAMPLES: five knit samples 4" x 8"	_____	_____
15	HEMS: 1" wide, catch stitch, slip stitch, running stitch, machine blind hem stitch, and fusible webbing are done correctly	_____	_____
20	REPORT: stretchability, durability, appearance, construction time, and personal preference are compared	_____	_____
5	COMPLETION: on time as agreed in contract	_____	_____

90-100	1
80-89	2
70-79	3
60-69	4
0-59	5

COMMENTS:

STUDENT:

TEACHER:

Topical Outline

6.0 Fashion and Fabric Care

- 6.1 Importance of Fabric Care
- 6.2 Cleaning Facilities and Processes Available
- 6.3 Cleaning Methods for Fabrics
- 6.4 Stain Removal Procedures

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Sturm, Mary Mark, Edwina Grieser, Dorothy Lyle, and Jane Roberts. Guide to Modern Clothing. New York: Webster Division, McGraw-Hill Book Company, 1973.

6.0 FASHION AND FABRIC CARE (Taught only at Level II)

6.1 Importance of Fabric Care
6.2 Cleaning Methods and Facilities

GOAL STATEMENT: The student will identify and evaluate the selection and use of supplies and equipment for laundry and dry cleaning in the care of fabrics.

COMPETENCIES	LEVEL II ACTIVITIES
LEVEL II 6.1 Identify the importance of the proper care of fabrics. (BEGINNING COMPETENCY)	6.1 Teacher or student leads discussion on the importance of proper care for fabrics, including the following factors: Lengthening of fabric or garment life Aesthetic value Removal of odors Cleanliness Economic savings Teacher shows students examples of fabrics which have not received proper care. An example may include fabrics which have been stained and not treated before laundering, or improperly washed or dry-cleaned garments.
LEVEL II 6.2 Indicates locations and types of cleaning performed in each type of facility. (BEGINNING COMPETENCY)	6.2 Student or teacher leads discussion on location of facilities and methods that can be used for cleaning fabrics: Home laundry - hand and machine washed Coin-operated laundry and dry cleaning Commercial laundry Dry cleaning establishments Students try to determine which type of facility is used for caring for fabrics by various individuals. Each student surveys at least five adults. Students also ask those surveyed to estimate the cost of using each type of facility.

COMPETENCIES	LEVEL II ACTIVITIES
LEVEL II 6.3 Analyzes the type of cleaning method to use for various fabrics. (BEGINNING COMPETENCY) (DECISION MAKING)	6.3 NOTE TO TEACHER: Teacher prepares a collection of textile products which serve different purposes and possess the following variations: Fiber content, fabric finishes, garment construction, ornamentation used, and amount and type of soil. Some of these textile products should have labels and tags attached which students examine. The other products have fiber content on them. Students exchange ideas about appropriate and suitable care for the clothing which they own and describe disasters they have had in caring for their clothing. Students read teacher-selected references on laundry and dry cleaning procedures. Class discussion with transparencies ("Lots about Laundering" from Proctor and Gamble). Teacher, or a student, demonstrates and provides information on laundering including: - Water conditions - cloudy, hard or soft, and odor. - Water temperatures and levels - Sorting procedures - Special laundry problems - graying, yellowing, heavy soils, and stains. - Washing machine features - Hand washing - Methods of drying and dryer features - Ironing

COMPETENCIES

LEVEL II ACTIVITIES

6.3 (continued)

Teacher demonstrates how soap or synthetic detergent reduces the surface tension of the water and allows the water to better penetrate the fabric. The teacher creates a similarly soiled area on two towels, then launders one in plain water and one with a synthetic detergent or soap.

Student demonstrates the laundering of an item which is not colorfast and discusses proper sorting and laundering techniques.

Students observe popular home magazines and television to assess what laundry products are advertised most frequently. They then identify the characteristics which are highlighted. The class discusses the effect of this advertising on the public.

Students bring empty laundry product boxes and bottles to contribute to a classroom display. The display includes water softeners, soaps, detergents, bleaches, bluings, brighteners, fabric softeners, and starches.

Students divide into groups and each group investigates one type of product listed above. The labels on bottles and boxes and are listed to obtain the following information:

- purpose of product
- varieties of product available

COMPETENCIES	LEVEL II ACTIVITIES

6.3 (continued)
- contribution to the finished laundered fabric
- special cautions or limitations of product
- another type product which could serve same purpose
- cost of product
- amount needed per laundry load
- phosphate or no-phosphate level

Groups share their findings with other class members.

Students conduct the experiments listed in Appendix 6.3 and complete teacher-devised worksheets, and compare the effects of:
- soaps and synthetic detergents
- water softeners
- liquid, granular and tablet detergents
- fabric softeners
- fabric whiteners and brighteners

Students research areas of ecological concern related to clothing and fabric care. Coordination may be given to research phosphate control, cold water wash, enzyme usage, use of fabric brighteners and softeners, and dryers versus line drying.

*Each two students select two textile products from teacher-made display and devise care tags for them after researching the information needed on the fabric and ornamentation.

6.4 Stain Removal Procedures

COMPETENCIES	LEVEL II ACTIVITIES
LEVEL II 6.4 Analyzes various stain removal procedures and products. (BEGINNING COMPETENCY) (DECISION MAKING)	6.4 NOTE TO TEACHER: Information on stain removal may be acquired from the following sources: "Removing Stains from Fabrics," Home and Garden Bulletin, No. 62. Obtain by writing to Superintendent of Documents, U.S. Government Printing Office (Washington, D.C. 20025) or Snowy Bleach, Gold Seal Company, Bismarck, N.D. 58501. Students stain a variety of fabrics (include various natural and man-made fibers) with a number of substances. The same stain is created on two pieces of the same fabric and one piece is used as a control. Information should include enzyme pre-soak products and enzyme detergents. Students experiment with removing stains of various kinds according to instructions provided by various booklets or family resources. After pre-treating one stain, launder both the control and the pre-treated fabrics in warm water with a synthetic detergent for five minutes. *Using a teacher prepared worksheet, students evaluate the effectiveness of the stain removal techniques.

APPENDIX 6.3

EXPERIMENTS IN LAUNDERING

Teacher, individual students, or student groups perform one or more of the following experiments. These may be conducted as an in-class or out-of-class experience. Class members observe the laundered samples to determine to what extent the products have contributed to the finished state.

Experiment #1

Compare the effect of soap and synthetic detergents on eight terry cloth towels washed four times in either hard or soft water. One towel each should be laundered in hard or soft water using the following washing compounds:

- soap product with brightener
- soap product without brightener
- synthetic detergent with brightener
- synthetic detergent without brightener

Experiment #2

Compare the effect of water softeners on six towels. Each towel should be laundered four times using one of the following:

- water softener
- no water softener
- water softener and soap
- water softener and synthetic detergent
- soap and no water softener
- synthetic detergent and no water softener

Experiment #3

Compare the effects of liquid, granular, and tablet detergents by laundering one towel in each of the above products in soft water and hard water.

Experiment #4

Compare the effects of fabric softener on four towels laundered in synthetic detergent, hard water, and one of the following:

- liquid softener added to rinse cycle
- powdered softener
- liquid softener added to wash cycle
- no softener

Experiment #5

Compare the effects of fabric whiteners and brighteners on towels. Towels are laundered either in hard water or soft water with a detergent and one of the following:

- chlorine bleach
- oxygen bleach
- ammonia
- bluing
- optical brightener